

display cp

THE RAILWAY GAZETTE

Price: Two Shillings

FRIDAY, JANUARY 9, 1959

UNIVERSITY
OF MICHIGAN

FEB 2 1959

Annually £5 by post

TRANSPORTATION



Modernization—changing from plain bearings

The first conversion of existing vehicles from plain to roller bearings of British Railways freight stock was on 275 Fish Vans, which were fitted earlier this year with Wagon Bearing Units manufactured by British Timken.

This versatile design is now being applied in large numbers at several British Railways Workshops where the programme of fitting Wagon Bearing Units, manufactured by British Timken, is now well under way.

TIMKEN

Regd.
Trade
Mark

TAPERED-ROLLER BEARINGS MADE IN ENGLAND BY

BRITISH TIMKEN

LIMITED

DUSTON, NORTHAMPTON (HEAD OFFICE) AND DAVENTRY, NORTHANTS



Photograph reproduced by kind permission of Messrs. Cravens Ltd.

Interior of British Railways 1st-class saloon coach

The above interior view shows the latest pattern Reclining Seats with self-aligning folding table equipment manufactured and supplied by Peters of Slough for the 1st-Class coaches designed and built by Messrs. Cravens Ltd. Darnall, Sheffield.

For railways throughout the world

*Peters of Slough Supply: Mechanical Signal Equipment, Seating of every description
Panelling and Insulation Boards, Power-operated Door Equipment, Automatic Couplers,
Rail Spike Extraction Tools, Blinds and Ventilators.*

G. D. PETERS & CO., LTD.

(A member of the G. D. Peters group)

Telephone : Slough 23201

SLOUGH, BUCKS.

Telegrams : Peters, Slough.



33, TOTHILL STREET, WESTMINSTER, LONDON, S.W.1.

Telephone: WHIttehall 9233 (20 lines) Telegrams: "Trazette Parl, London"
BRANCH OFFICES

GLASGOW: 139, Bothwell Street, C.2 Central 4646

NEWCASTLE-ON-TYNE: 21, Mosley Street Newcastle-on-Tyne 22239

MANCHESTER: Century Insurance Building, St. Peter's Square. Central 7667-8-9

BIRMINGHAM: 90, Hagley Road, Edgbaston Edgbaston 2466

LEEDS: 70, Albion Street Leeds 27174

BRISTOL: 8, Upper Berkeley Place, Clifton Bristol 21930

Annually £5 per post Single copies, Two shillings.

Registered at the G.P.O. as a newspaper. Entered as second-class matter in U.S.A.

Editor: B. W. C. Cooke, Assoc. Inst. T.

Vol. 110]

FRIDAY, JANUARY 9, 1959

[No. 2

CONTENTS

	PAGE
Editorial Notes	29
Car Parks for the Railways' Customers	31
Operating Problems in India	32
Diesel Possibilities in Scotland	32
Progress in New South Wales	33
A.A.R. Report for 1958	33
Letters to the Editor	34
The Scrap Heap	35
Overseas Railway Affairs	36
Corner Brook Marshalling Yard, C.N.R.	38
Rhodesia Railways "20A" Class Locomotives	39
Simplified Passenger Coach Construction	42
Personal	45
New Equipment and Processes	48
News Articles	50
Contracts and Tenders	52
Notes and News	53
Railway Stock Market and Official Notices	56

Pay Inquiry and Union Reaction

ELSEWHERE in this issue we give précis of articles written for *The Railway Review* by Mr. C. W. Evans, National President, and Mr. S. F. Greene, General Secretary, of the National Union of Railwaymen. The articles survey the developments which may be expected from a railway point of view during the coming year. Not unnaturally, each expresses union reaction toward the independent pay inquiry now being held regarding railway wages. Although the general tenor of both articles is restrained and reasonable, each contains an underlying note of determination that railway wages eventually must increase to union satisfaction. In view of the position held by each author, this determination hardly is surprising. The N.U.R. is pledged to better the financial position and conditions of its members and it would be strange indeed were its National President and its General Secretary to take any other stand. Nevertheless, thinking union men may regret the apparent inability of their leaders to formulate any positive ideas as to how the desired increases are to be granted other than calling for "co-ordination and integration of our transport system"

and the return of a Labour Government, without which it seems that such co-ordination and integration is impossible. Neither Mr. Evans nor Mr. Greene may be accused of thoughtlessness or bigotry—Mr. Evans very pertinently asks where the money for the increases is to come from, and Mr. Greene points out that the Midland & Great Northern Railway, scheduled for closure, would have had to go "whatever Government had been in power." The union has set up a new sub-committee to work in conjunction with a special transport sub-committee formed by the Labour Party and the T.U.C. While this journal regrets the proneness towards "committeitis" which is so noticeable a feature of modern society of every political complexion, it realises that the problems involved in the railway pay situation indeed are, as Mr. Evans claims, "important and serious." Every avenue, no matter how unpromising, should be explored to ensure that some measure of final satisfaction for all parties is achieved. Any tendency to sacrifice thoroughness for speed must rigorously be avoided, for the inquiry's findings not only will form the basis of all future wage negotiations—they will provide information relating to work-categorisation on a scale never before available.

A Forgotten Industry

ONCE again disappointingly few railway officers and men have received recognition in the New Year Honours List. On going to press last week full details of the honours were not available. It was hoped that this week we would be able to review a list more worthy of the contribution made by railwaymen at home, and overseas, to an industry so essential to the economy of Britain and the Commonwealth. During the past year, the railway manufacturing industry has played a large part in our export trade, and in the railway modernisation programme at home. It, too, has received sparse recognition. Mr. H. Hull, President of the Transport Tribunal, since 1951, is rewarded with a Knighthood. Among the railwaymen honoured, Mr. C. T. Hutson, Chief Commercial Superintendent, East African Railways & Harbours, is awarded the C.B.E. The improved restaurant car and refreshment-room facilities, of the Hotels & Catering Services, B.T.C., are recognised by the award of the O.B.E. to Mr. E. K. Portman-Dison, Chief of the Service. Mr. W. J. Richards, Chief Passenger Train Inspector, Western Region, British Railways received the M.V.O. (5th Class). Mr. Leslie Edwards, recently appointed Divisional Traffic Manager, Bristol, Western Region, receives the M.B.E.

Importance of L.T.E. Off-Peak Traffic

THE necessity for employees of London Transport to encourage travel by Underground train and bus at off-peak periods is rightly stressed by Sir John Elliot, Chairman of L.T.E., in a New Year message to the staff. Net receipts, he points out, are highest not in the peaks, but at off-peaks, during which latter all additional traffic helps to pay for the large amount of equipment and staff required for dealing with peak-hour traffic only. He describes 1958 as one of the most difficult years London Transport has experienced. Traffic on the road services continued to drop and services have had to be reduced where the demand has fallen. There was, however, an increase of traffic on the Underground caused, he believes, by the increasing congestion of the London streets. He also refers to the television advertising of cheap tickets on the Underground and to the "Hop on a Bus" posters. How far the latter are stimulating traffic remains to be seen. There has been criticism where these posters have been exhibited at places affected by cuts in bus services.

C.I.M.A.C.—1959

THE International Congress on Combustion Engines (C.I.M.A.C.), is being held this year in Wiesbaden, Germany, from June 14 to June 19 inclusive. Works visits will be arranged during the period of the Congress and in the following week. Official languages will be English

and French with the addition of German. Simultaneous translation will take place into English, French, German and Italian. Texts of papers will not be read at the sessions, some of which will be simultaneous. All contributions to discussions, which will be tape-recorded, will be passed in writing to the German Organising Committee 14 days before the beginning of the Conference. Speakers, other than authors of papers, will be allowed three minutes. To date, of the 29 papers provisionally accepted, nine are from the United Kingdom. Invitations, programmes, and registration forms will be despatched to intending delegates on January 15. Final date for return of registration forms is February 28, and final date for payment of participation fees is March 15. The Congress will be held at the Kurhaus (centre of Wiesbaden), the conference room of which is capable of seating approximately 1,200.

Overseas Railways 1958

INTENSIVE activity by many railways overseas in effecting improvements and acquiring new plant of all kinds, including motive power, signalling and permanent way equipment, and mechanical and electronic, accounting and computing devices, besides building staff quarters and organising welfare measures and training for employees, is the main impression gained from "Overseas Railways 1958," reviewed briefly elsewhere in this issue. The process of improvement is not confined to rapidly-developing territories, nor to the many railways which are engaged on new construction. In Ceylon and the Republic of Ireland, for instance, both countries whose limited areas restrict the length of rail hauls and intensify road competition, a great deal is being done to equip the railways to provide competitive services. There is no economic or geographical environment in which railways are not exceedingly active. The amount of railway building in progress in the British Commonwealth alone is as great as it has been for a good many years. The opportunities for the industries supplying the railways are correspondingly great.

Railways in the Forty-Ninth State

THE part played hitherto by railways in developing Alaska, which by last Saturday's Presidential proclamation is to become the forty-ninth of the United States on Independence Day next, July 4, has been small. There are at present a little over 500 route miles of line in a country with an area of well over half-a-million square miles, but with a population of less than 150,000. Twenty of the 111 miles of the White Pass & Yukon Railway are in Alaska, the rest in Canada. The railway was built with British capital, mainly in connection with the Klondike "gold-rush" of the late 1890s. It has now been acquired by a Canadian company. Its 3-ft. gauge appears to limit its potentialities. The future of the 4-ft. 8½-in. gauge Alaska Railroad, also in the southern area of the new State, is bright, provided that it can be extended to tap the immense mineral wealth which is only just beginning to be exploited. If capital is forthcoming, Alaska could be joined by rail with the main railway system of North America. There is, moreover, a considerable potential "piggy-back" traffic, such as that which is expected over the Pacific Great Eastern Railway, of British Columbia, in conjunction with the Alaska Highway, which links Alaska with the 48 States through Canada.

Institute of Transport Visit to Copenhagen

FEW cities in Europe contain a greater variety of subjects of transport interest for study during a nine-day stay than does Copenhagen, which the Institute of Transport is to visit on June 17-25. There will be opportunities for personal observation and group inspections of installations of the Danish State Railways, Copenhagen Harbour, the Airport, the City tramways, and the Directorate of Roads, besides visits to places of industrial and historic importance. The Danish State Railways will have much to show, including their efficient electric

suburban service, main-line diesel locomotives and multiple-unit trains, passenger and goods train ferry working, goods depots, and, perhaps, plans for remodelling lines within the city of Copenhagen. All concerned with surface transport can see much of interest on the routes to the Danish capital: via Harwich and Esbjerg by sea direct, and thence by train, or via Harwich, the Hook of Holland, Hamburg, and thence either via the Grossenbrode/Gedser ferry and over the two-mile Storstrøm Bridge, or over the Kiel Canal at Rendsburg and up through Jutland and over the Little Belt Bridge and the Great Belt train ferry. All delegates will experience the courtesy and hospitality of the Danes and see something of a highly civilised and efficiently functioning community.

British Tourism in 1959

LAST year, the Lourdes Centenary and the Brussels Exhibition helped to stimulate holiday traffic abroad: In 1960, there will be the Olympic Games in Rome and the Passion Play at Oberammergau. The current year holds no outstanding tourist event, but Thos. Cook & Son Ltd. believes it will be a good year for tourism. Economically, the devaluation of the French franc and the many price reductions should prove attractive: in some cases, inclusive costs are only a few shillings in excess of the normal air fare. It is estimated that any unmarried person earning over £8 a week now can afford to go abroad and that many do so. Speaking in London on New Year's Eve, Mr. Cecil Garstang, Chief Assistant General Manager of Thos. Cook & Son Ltd., referred to the truism that the extent of British holiday spending abroad materially is affected by the amount of incoming tourist earnings. He praised the British railway and other transport concerns for their willing co-operation in providing special rates and facilities, and referred to the all-round efforts which are being made to encourage the tourist industry within these islands.

Progress of Reconstruction at Barking

THE opening last Monday of the up line over the main flyover at Barking, Eastern Region, British Railways, marks the completion of the first stage of the Barking reconstruction scheme being carried out in connection with the electrification of the London, Tilbury & Southend Line at 25 kV., 50 cycles. The purpose of the flyover is to carry trains between Tilbury and St. Pancras and the heavy and growing freight traffic between North Thameside and all parts of the country, over the Southend line and London Transport tracks, and so eliminate crossings on the level east of Barking Station. The traffic at Barking is very intense and the eight lines through the station carry a heavy steam and electric passenger service besides goods traffic, much of which is now diesel hauled. Multiple crossings at the east end of the station are used by 700 trains a day. Construction of the 440-yd. flyover with a gradient of 1 in 80 has been carried out in spaces created by temporary diversions of running lines. The completion of the first stage should ease congestion at Barking and help to improve punctuality.

Rationalisation at Dundee

THE closing of Dundee East terminus station, and the operation by the Scottish Region of British Railways of multiple-unit diesel trains between Arbroath and other stations on the former Dundee & Arbroath Joint Line and either Tayport or Edinburgh over the Tay Bridge, or Perth, with some acceleration of the service, is a measure awaited for some time. Places in the residential area east of Dundee are now connected direct with Perth and with Fifeshire. Instead of three passenger stations in Dundee, there are now two. Tay Bridge Station, the principal Dundee station of the old North British Railway, is served by the expresses between Aberdeen and Edinburgh and the South, and by diesel trains to and from Arbroath, Tayport, Edinburgh (stopping trains), and Perth. Dundee West, the former Caledonian Railway station, is terminus of trains to and from Perth and Glasgow via Stirling.

The only disadvantage seems to be the closing of Dundee East. This terminus of the old Joint Line was convenient to a business quarter of the city. The acceleration of the Arbroath services, however, may well compensate for a few hundred yards' additional distance to Tay Bridge Station.

Wagon Manufacture in India

THE Republic of India is making determined efforts to achieve self-sufficiency in building wagons. Production in India has increased nearly sixfold since independence in 1947. In 1947-48 some 3,000 wagons were turned out. In 1952-53 production increased to 6,400. The increase was faster during the subsequent five-year period and over 17,000 wagons were completed in 1957-58. At first, only general-purpose vehicles were manufactured in the country and most of the special-purpose wagons were imported. Indigenous manufacture of the latter has since been developed and the Government has announced that all the requirements of the railways can be met entirely from production in India. Besides established wagon manufacturers, "educational" orders have also been placed on 10 new manufacturers in different parts of the country. Previous declarations that all future wagon production was to be indigenous have not precluded orders being placed abroad when railway demands exceeded the capacities of Indian builders.

Geographical Interlocking Circuits

THE paper read by Mr. H. A. Codd on December 18, 1958, before the Institution of Railway Signal Engineers, on geographical circuit technique dealt with a theme which has been attracting increasing attention since the war. It has done so both for itself and also because it has come to be associated with developments in the construction of certain main components of power interlocking installations in an endeavour to arrive at a greater range of unit construction and pre-arranged standard wiring layouts than had hitherto been thought possible. As far as is known, the fundamental conception involved in this kind of circuiting originated with the sometime engineer of the Eastern Railway of France, Descubes. Many years ago he constructed the first route setting signalboxes, the largest of which is still in service at the Gare de l'Est at Paris, functioning on what is known today as the entrance-exit principle but using miniature lever frames and some mechanical locking. Descubes correctly used the term "geographical" to describe the arrangement of his circuits which included relays set out in correspondence with the track layout concerned. His apparatus did not, however, find favour outside the Eastern Railway, possibly because of the numerous relays required with it.

Loading 6,000 Tons of Coal an Hour

THE Chesapeake & Ohio Railroad has brought into use at Toledo, on Lake Erie, what is claimed to be the largest and fastest coal-loading dock in the world, transferring 6,000 tons of coal an hour from railway wagons into ships. Twin high-speed rotary dumpers invert two bogie wagons simultaneously, dropping their contents on to a feeder belt. The latter carries the coal to the main loader belt, which is 8 ft. wide and moves at 600 ft. per sec. The main belt carries the coal on to the loading tower, which moves the length of the dock on two sets of rails, one on the dock wall and the other 75 ft. inland from it. The ship is moored, and the tower then moves along it, loading successive holds. In the holds the coal is trimmed through a telescopic chute and distributed by a rotating cowl. After their contents have been dumped, the wagons are passed by gravity over a loop line in which the empties are marshalled for a return to the mines, or for loading with lake-borne ore. The yard can accommodate 262 loaded and 796 empty bogie coal wagons.

More Beyer-Garratts for Rhodesia

THE Rhodesia Railways, whose traffic has increased almost threefold in little more than 10 years, has now received and placed in service all of the 46 4-8-2+2-8-4 Beyer-Garratt locomotives which were ordered in 1956. These are reported to have proved satisfactory in every way in handling traffic. They have a wide range of uses. The Beyer-Garratt locomotive has been in frequent demand for many years on overseas railways, more particularly where conditions are difficult. Its ability to exert a high tractive effort continuously, to operate when necessary on a restricted axle loading, and to steam freely on any local fuel, has enabled several railways to operate at costs per ton-mile which would have been unattainable by any other form of motive power. Elsewhere in this issue are described the latest Beyer-Garratts to be added to the Rhodesia Railways large stock of this type of locomotive. These have the advantages associated with steam power, plus the special features connected with this particular form. The most eloquent testimony to their success is the fact that since their introduction in 1925, orders have totalled 250 locomotives.

Car Parks for the Railways' Customers

TO drive up to a large station and find a notice in severe terms forbidding parking, and perhaps threatening penalties for breach of railway by-laws, or a British Transport Commission constable pointing out, however courteously, the illegality of parking for an extended period, is not likely to engender goodwill in a customer of British Railways. If he has what is generally described as business to transact, he may often park his vehicle on railway property, and the police are usually co-operative. Such business may be an inquiry about a parcel, or train times, or negotiations on movement of thousands of tons of freight, but equally it may be the use of a station barber's shop or the purchase of papers at a bookstall or a drink in a refreshment room. If, however, he wishes to travel by train and leave his car until he returns later that day or on the next day, he must find somewhere outside railway property to leave it. The assumption, which many contest, is that the using of railway facilities is not engaging in business at the station.

The manufacturer or trader who several times a year regularly spends say, £5 on a first class return ticket on a business trip besides, it may be, paying for sleeping or Pullman car supplements each way, and perhaps for meals and for entertainment, in the train, of business acquaintances, may rightly regard himself as a good customer of the nationalised transport undertakings. He may well be a consignor of goods on a large scale, and, therefore, a potential, if not an actual, contributor to British Railways freight revenue. Today, when those holding responsible positions in business, trade, and industry work longer hours than before, morning departures of long-distance business expresses tend to be earlier, and evening arrivals later. The passenger who lives at some distance from a terminus in London or a large provincial city is often compelled to travel by motorcar to catch an early morning train because no reasonably convenient public transport is provided at that hour. Not infrequently late arrivals of expresses in the evening make a journey home by private car almost a necessity. It must be accepted in any case that the motorcar is part of many people's lives, and that it can be used in conjunction with, and not as a substitute for, the long-distance train.

Car parks are being provided in some stations in the provinces, often as their turn comes to be rebuilt. A good deal has been done to provide parks at country and outer and inner suburban stations for travellers by residential services. The London Transport Executive particularly has led the way in making parking space available at stations in the suburbs. Some of the parks, however, are full day after day. What are needed are adequate parking facilities at large stations in London and provincial cities and at stations used as railheads by motorists on a large scale. In the outer London area in particular, the

spread of building means that many of the better dwellings are a considerable distance from the railway station.

As a short-term measure, a little re-distribution of space and tidying up at several large stations would free space which could be used as parks without much structural alteration. A walk around several termini reveals areas used intermittently for housing road parcels vans, for instance. With a little re-planning of station working and exercise of self-discipline on the part of station staffs, they would adequately afford some parking area. A good many war-damaged sites still exist round some large stations in towns. These also could be used. Often the land is B.T.C. property and could be so used. Second, there are spaces which could be roofed over with a minimum expenditure of manpower and steel and concrete by the civil engineers, perhaps even with ramps for access to upper levels. As steam is replaced by diesel and electric power, roofing over tracks will present no difficulties as regards smoke. Lastly, several large stations in the next few years will have to be rebuilt, apart from traffic considerations, if only because their structures will have reached the end of their useful lives after perhaps a century. Some steel overall roofs, for instance, will need replacement. There are opportunities for laying out stations with upper floors, including extensive car parks, over diesel-worked or electrified lines.

All this will be costly. It is not suggested that parking, except for short periods, should be free. Reasonable charges should go far to afford a return on expenditure on structural alterations. Such a return, however, is not the main issue. The important problem is to afford the railway user a facility which most businesses today give their clients, and to make him feel that he is a valued customer. British Railways need all the goodwill they can obtain. Relatively small expenditure on parking space is not a difficult way of contributing to it.

Operating Problems in India

PUNCTUALITY and safety are causing concern to officers of the Indian railways. We have not seen recent figures, but there are indications that late running, especially of long-distance passenger trains, has been greater in recent months than it was before the last war. In view of the mileage of single track and of delays likely to be caused by cattle straying on the line, washouts, and so on, the standard of punctuality on Indian railways was high until the war imposed a crushing burden of traffic, with, later, the complication of difficulties in maintaining locomotives and rolling stock caused *inter alia* by scarcity of spare parts. What must in any case have been a slow post-war recovery, as in other countries, was aggravated in India by the re-adjustments occasioned by Partition.

Material aids to punctual running in the last few years have included additional motive power, and improved or rehabilitated track, and new signalling. These may have been offset to some extent by difficulty in handling the additional traffic resulting from implementation of the Five-Year Plan. It seems, however, that a good many trains are late because of the human element. The Deputy Minister of Railways, Mr. V. S. Ramaswamy, recently pointed out to a conference of Chief Operating Superintendents the high standard of punctuality in Japan, which had been remarked on by the President of India, Dr. Rajendra Prasad, on his visit. Mr. Ramaswamy emphasised the need for improvement in India, partly through careful timetabling and adequate provision for civil engineering and other restrictions. If there is apathy and slackness among railwaymen, the situation has certainly been made worse by the anti-social behaviour of passengers who pull communication cords to stop trains where they wish to alight, and by delays at stations caused by protracted disputes over fares. Electrification, introduction of diesel traction, construction of marshalling yards and cut-off lines, doubling of single-line sections, and installation of improved signalling, all of which are in hand, will help to solve the problem.

The incidence of accidents is reported to be causing concern to the Indian public. No recent figures are available in Britain, but the number of serious accidents does not seem to be high relative to the mileage and traffic. As might be expected on a system totalling nearly 50,000 track-miles, the number of accidents of all kinds is considerable, and they are given prominence in the newspapers. A recent analysis showed that 40 per cent were caused by failure of the human element. The Deputy Minister has stressed the need for effective supervision, including personal inspection, by operating officers at all levels. Improved signalling and installation of C.T.C. will go some way to increase safety.

A third problem is that of operating express goods services and ensuring guaranteed delivery times as a measure to combat loss of high-rated goods traffic to the roads, a relatively new development in India. That the Indian railways are capable of organising fast freight services with guaranteed deliveries, on a large scale, is shown by what was accomplished by them during the war in even more difficult circumstances, in handling urgent consignments to ports.

Diesel Possibilities in Scotland

IN the Scottish Region of British Railways more, perhaps, than in any other, the cost of early introduction of diesel locomotive power on its main lines should afford a good return. For this reason the recent announcement that replacement of steam by diesel haulage on lines north of Newcastle is to be accelerated, is the more welcome. On the East Coast main line from Edinburgh to Aberdeen, for example, almost every start from the principal intermediate stops has to be made up a sharply rising gradient, on which the high starting tractive effort of diesel locomotives would be of the utmost value.

Southbound from Aberdeen an express faces a short 1 in 96 ascent from the platform end, and a total of 7½ miles of steep climbing to beyond Cove Bay; from Stonehaven there is the six-mile climb to Drumlithie. Out of Montrose 3½ miles of stiff ascent begin with an inclination of 1 in 88. Even the level stretch from Arbroath is preceded by a brief 1 in 115 up from the platform; from Dundee there is the climb at 1 in 66-74-114 on to the Tay Bridge; and finally, after steep inclines out of Leuchars, Ladybank and Thornton Junctions, the locomotives, having slowed severely for the curve at Inverkeithing, must tackle two miles at 1 in 70 on to the Forth Bridge.

Over such a route the accelerating powers of diesel locomotives of not less than 2,000 h.p. should make possible revolutionary accelerations. In 1939 the fastest southbound train was allowed 3 hr. for the run of 130½ miles from Aberdeen to Edinburgh, with four intermediate stops, but since the last war there has been a decline, and the fact that the seven southbound expresses today take from 3 hr. 41 to 3 hr. 55 min. on their journey, with a combined average speed of no more than 34.5 m.p.h., compares poorly with the speed over the East Coast main line south of Edinburgh. Intermediate stops are certainly more numerous now than they were in the past. Even so, 3-hr. timings between Edinburgh and Aberdeen, stops included, should offer little difficulty to adequate diesel power.

The question might arise as to whether adequate mileage could be obtained over this route to make maximum use of continuous diesel availability, especially in view of the very limited traffic at night. The answer would be to establish a pool of diesels at Edinburgh, which at night could find ample employment with the heavy passenger and freight service between Edinburgh and Newcastle, there handing over to the Eastern Region "Deltics" for the continuation to the South. During the day the Edinburgh diesels could divide their activities between the Edinburgh-Newcastle, the Edinburgh-Aberdeen, and possibly also the Edinburgh-Perth-Inverness services. The last-named, with its very lengthy and steep gradients, is

yet another route over which the high tractive effort of diesels could be used to very good advantage.

No doubt through locomotive workings could be arranged over the 255 miles from Newcastle to Aberdeen and back, or the 166 miles from Edinburgh to Inverness and back, to keep the diesels as continuously occupied as possible. It may be that diesel set trains of the inter-city type, similar to those in use between Edinburgh and Glasgow, are in contemplation for the Edinburgh-Dundee-Aberdeen main line, but unless the service is greatly amplified, it will need trains with more than the six-coach accommodation of the Edinburgh-Glasgow sets to deal with the present traffic. Independent diesel locomotives, on the other hand, would have a considerably greater scope in regard to both route and type of service, passenger, fish or freight trains, besides being capable of use with existing passenger stock on the through trains from and to the South.

Progress in New South Wales

ALTHOUGH declining traffic volume had an adverse effect on the overall results of New South Wales Government Railways operations in the year ended June 30, 1958, the Department maintained or surpassed previous high records in significant operating averages which measure operational efficiency and economy. This is revealed by Mr. N. McCusker, the Commissioner for Railways, in the annual report on the operation of the Department of Railways presented to Mr. A. G. Enticknap, the New South Wales Minister for Transport.

During the 12 months under review, the decrease in the stock of steam locomotives was offset by the increase in the number of electric and diesel-electric locomotives in commission. This has been consistent with the Department's modernisation programme. Among the major works undertaken by the Department was the erection of an electric and diesel-electric locomotive depot at Enfield, with a capacity for 60 electric and 100 diesel-electric locomotives. This depot has been designed to provide for speedy and efficient inspection, servicing and maintenance of these types of locomotives. Work commenced on the electrification of the lines between Hornsby and Gosford. On this project the Department estimates a net financial saving of some £720,000 a year after allowing for interest and depreciation on the capital outlay of £3,841,500. Progress on the work is well ahead of schedule and the electrification was opened to Cowan on November 16, 1958. It is anticipated that the line will be completed to Gosford by the end of 1959.

In the competitive field of transport it was evident that the railways continued to face stiff competition from both road and air transport. Improvement of freight services, the development of new methods of freight handling, the expansion of departmental bulk loading system, increased use of commercial officers for the canvassing of new business are indicative of the Department's endeavours in this field. The Railway is continuing to plan for the future in which full use is made of whatever new techniques and advances in technology will improve services and reduce costs.

The working expenditure for the year, which totalled £72,533,647, was £2,817,956 less than for the previous year. As this saving was achieved in addition to the absorption of uncontrollable increases in expenditure totalling over £1,000,000, economies effected in operations totalled approximately £4,000,000 for the year. In addition, capital debt charges were £1,121,000 greater than in the previous year. Earnings for the year amounted to £74,432,599, which was a decrease of £4,256,003 compared with the year 1956/57.

Concessions allowed by the Department amounted in total to £865,599. The concessions comprised passes to blind soldiers and their guides, transport of store stock, starving stock and fodder at reduced rates, rebates on freight to consignors of mill products, export flour, rice, and canned fruit. The total capital expenditure on equipment and lines open for traffic was £270,912,375.

A.A.R. Report for 1958

(By a correspondent)

THE Association of American Railroads lost no time in reporting on its activities in 1958. The year was a difficult one for the railways because the business recession in the U.S.A. brought about a sharp fall in freight and passenger traffic. Fortunately the Association made notable progress with a legislative programme designed to improve the railway position.

Congress repealed the Federal excise tax of 3 per cent on transport of property by carriers for hire. Of more consequence was the passing of the Transportation Act of 1958. Its principal provisions are briefly as follow: (1) A plan of Government-guaranteed loans will aid railways which cannot raise funds through ordinary commercial channels; (2) the Interstate Commerce Commission is vested with jurisdiction over the furnishing of train and ferry services; (3) the I.C.C. has been given more authority over the level of intra-State rates; (4) a new rule of competitive ratemaking as between the various modes of transport is established; (5) a stop is put to the irregular conduct of transport for hire under the guise of private carriage; and (6) the exemption from regulation of agricultural commodities carried by road is limited in scope.

Congress took another step forward by authorising the Senate Committee on Commerce to make a complete study of Federal transport policies and allied problems. Its report is to be made early this year, with recommendations for action as may seem necessary.

The Association report describes the effective measures which its Public Relations Department took to rouse the interest of the American people and newspaper press in the precarious state of the railways. The Department distributed 400 special and 89 periodic news releases last year. Recurring information about railroad operations, revenues and expenditures gave an up-to-date picture of the industry and acted as a barometer of economic conditions.

A.A.R. advertisements appeared in publications with a circulation of 160 million. Available in quantity for the railways were 65 different prints; 23 of these dealt with legislative matters before Congress. The total issue of documents of all kinds reached a total of 8,942,000.

The extent of the Department contact with the public can be judged by the fact that it received 161,000 enquiries about railway topics. In reply to special requests, over 50 separate articles and 760 notes were prepared for the use of writers on transport questions. Some 1,100 college or university teachers received monthly bulletins of railroad news. Railwaymen are not forgotten; 11 issues of a brochure, "Railway Digest," were sent to 16,000 of them; other persons to the number of 8,000, who are interested in transport also had copies of this publication.

This remarkable volume of publicity work was the outcome of more than 20 years of experiment and organisation, with the object of impressing upon the public mind that an efficient railway system is essential for the national well-being. Much of the original constructive effort was directed by Mr. Robert S. Henry, Vice-President in charge of the Department until July last, when he was succeeded by Mr. J. Handley Wright.

BUREAU OF RAILWAY ECONOMICS

Nearly 50 years ago the railways set up the Bureau of Railway Economics to collect factual data about traffic trends and explain the reasons for current changes. The Bureau watched the competitive situation, evaluated movements in the economic field and studied indexes of prices and wage rates. In 1934 it became a department of the Association. Last year it coped with an unprecedented demand for statistical and other particulars bearing on the railroad position. In answering queries the Bureau has the advantage of possessing a unique library of transport literature, which is thrown open to visitors from every country in the world.

The prompt and regular output of statistics from the Bureau is impressive. Of special value are a monthly

statement of revenues and expenses for all Class 1 railroads and an annual bulletin of operating statistics, with details for each individual railroad, issued in May. The Director of the Bureau prepares a review of railway operations for each year, which is published in the following April and is indispensable for an understanding of the American transport situation.

A Vice-President supervises three divisions dealing with competitive transport, purchases and stores, and railway mail transport. A second Vice-President takes charge of the Operating & Maintenance Department, which includes Operating Transportation, Engineering, Mechanical, and Freight Claim Divisions, located at Chicago. In addition the Car Service Division and a section dealing with train operation (by control and signals), have offices in Washington, D.C. All these divisions do efficient service in further-

ing the day-to-day working of the railways. For example, the Car Service Division exercises general supervision over freight rolling stock on a nationwide basis; its monthly reports on the transport situation have been quoted frequently in *The Railway Gazette*.

Finally, a department located in Washington deals with finance, accounting, taxation and valuation. Its functions are of a highly specialised nature and a programme of employee training in various phases of railway accounting is being carried out. As there is a dearth of textbooks on railway accounting, the department aims at giving the staff ample guidance for future use. A textbook on maintenance of equipment (rolling stock) has been issued and another volume dealing with accounting connected with transportation is being prepared. The department also takes a lively interest in electronic data processing.

LETTERS TO THE EDITOR

(The Editor is not responsible for opinions of Correspondents)

Railway Financial Difficulties

December 31

SIR,—Unless the many people who are interested, and express interest, in all aspects of railways, help British Railways in their present financial difficulties by travelling by rail as much as possible on business and on holiday, and by consigning their merchandise by rail, there will soon be many fewer railways to be interested in. Many people will remember how most of those who attended the inquiry into the proposed closing of the Lynton & Barnstaple line of the Southern Railway in 1935, and wished the line to be kept open, came to the meeting by motorcar.

Strenuous efforts are made to reopen and operate semi-derelict narrow-gauge lines, and raise funds to preserve vintage locomotives, but a little more practical help in earlier days might have forestalled the closing of some of the branches which some enthusiasts now wish to acquire from British Railways and keep open, such as the Ross-Monmouth line.

Many railway facilities are as good as, or better than, those offered by alternative means of transport, but as they are not sufficiently publicised, the public remains ignorant of them, and takes its business elsewhere.

Yours faithfully,

A. H. SPRING

15, Argyle Road, Reading

Output of Freight Train Operation

December 27

SIR,—The statement quoted in your December 5 issue, that a train of heavy traffic on British Railways might, in reasonable conditions, produce 25,000 ton-miles in an hour apparently startled some of our people. During the year 1957 the U.S.A. railways, operating 221,000 miles of road, turned out 59,186 gross ton-miles (excluding locomotives) in a train-hour, or about 26,815 net ton-miles. In this calculation short tons are used, but train-hours include hours spent by train engines in shunting, 22 per cent of the total.

Individual railways, working in various areas, greatly exceeded these general averages. In the Far West, the Union Pacific, operating 9,786 miles of line and moving trainloads of 1,358 tons at 25.8 m.p.h., reeled off 83,742 gross ton-miles in a train-hour and claimed to work traffic faster than any other railroad in the U.S.A. The Norfolk & Western, a compact system of 2,110 miles, carried 61 million tons of coal and coke out of a total tonnage of 77 million tons, and had an average haul of 300 miles. Its wagonload of 51 tons and net trainload of 2,614 tons, moving at a speed of 17.6 m.p.h., led to an output of 87,492 gross ton-miles per train-hour. The Bessemer & Lake Erie, a line of 206 miles handling mainly iron ore,

reported an hourly production of 95,057 gross ton-miles.

Perhaps the most remarkable feat in 1957 was performed by the Pennsylvania Railroad, operating 9,900 miles in the highly competitive Eastern District. In 10 years from 1948, this famous railway increased its productivity every year from 18,895 to 25,331 net ton-miles a train-hour, or by 34 per cent. It held the wagonload steady at 35 tons; hauled five more wagons on each train, raising the load from 1,444 to 1,519 tons; increased the daily mileage of freight locomotives from 79 to 112 and quickened train speed from 13.5 to 17.1 m.p.h. These improvements were in part due to the gradual installation of diesel motive power, until at November 30, 1957, steam locomotives were eliminated. More efficient service did not, however, prevent reductions of 45 million in tons carried and of 7,298 million, or 12 per cent, in ton-miles worked in 1957 compared with 1948.

Yours faithfully,

R. BELL

Clacton-on-Sea

Impediments to Travel

December 29

SIR,—The editorial note in your issue of December 19, in which you draw attention to the delays to surface transport caused by Immigration and Customs formalities at ports, carries the assumption that these formalities are a necessary evil. Perhaps they may be in the case of *incoming* traffic, where some form of control seems inevitable, but why are they necessary in the case of *out-going* traffic, particularly the Customs examination of passengers' baggage?

The examination of outward baggage was not thought necessary before the war, so why is it necessary now? Apart from putting passengers to the inconvenience of proceeding into the Customs shed for this examination, all baggage must be double-handled—once from the train to the Customs shed, where it usually has to be sorted under initials, and again from the Customs shed to the ship's side. All this causes extra cost, inconvenience, and delay.

I entirely agree with your remark that "Customs officials at British ports are almost invariably courteous and usually expeditious." In fact their examination of outward baggage is today of a perfunctory nature, and they give every appearance of being unwilling slaves of a bureaucratic system. To be quite honest, one can say that the Customs examination of outward baggage is now really a complete farce. The farce seems to have been abandoned at London Airport, so why should it be continued at seaports?

Yours faithfully,

F. C. C. STANLEY
Managing Director

Bergen Line,

Norway House, 21-24, Cockspur Street, S.W.1

THE SCRAP HEAP

Steam Wins

Those who think the modern child is hardboiled should have been at the Institution of Civil Engineers' holiday lecture on peculiar railways by Mr. L. T. C. Rolt. The point is not so much that 850 youngsters squeezed into a hall designed for 800 but that 338 filled up a ballot form on which they were asked to state which kind of locomotive they preferred, and that the result was as follows:

Steam	..	..	..	..	224
Diesel	..	..	..	..	57
Electric	..	..	..	..	45
Gas turbine	..	..	..	..	12

It was an overwhelming vote for romance. But too late, I fear, to check the wheels of British Railways modernisation programme.—"Peterborough" in *"The Daily Telegraph."*

Romantics of Tomorrow

How nice and cosy and familiar it is to see that the Christmas numbers in colour are still, as they should be, sticking to the old traditions. . . . Stage coaches bowl along frosty roads with drivers and guards smiling at us in reminder of what we have missed by being born too late to book an outside seat at Charing Cross and sit wrapped up through a December night.

As passenger trains become period pieces they may expect to enjoy the tributes of the nostalgic. We shall see, if we live long enough, pictures of smiling attendants in *ye olde* restaurant

cars hurrying from their little kitchens with flaming puddings held aloft. Compartments, full of cheerful wayfarers, will be painted in bright colours with the permanent way (as snowy as the coach roads had been) sweeping towards a background depicting a neo-Gothic railway station after Mr. Betje-man's own heart.—From *"The Times."*

Royal Journeys

The Queen's journey in Christmas week from Liverpool Street to Wolverton, the station for Sandringham, in a saloon attached to the 2.24 p.m. express to King's Lynn is a reminder that in Britain, in normal circumstances, the railway journeys of the Sovereign have almost always been by Royal train.

The Viceroys of India used the Viceregal train, which served also as a residence and mobile headquarters. Under British rule the Commander-in-Chief in India also was entitled to a special train, though it is not known how often one was asked for. The Nizam of Hyderabad, whose State Railway consisted of both 5-ft. 6-in. and metre-gauge lines, had two trains, one on each gauge. In Ruritania, according to Anthony Hope, austerity prevailed in the 1890s. He mentions in *"The Prisoner of Zenda"* that on his way to his coronation, the (acting) King waited, apparently in accordance with procedure, at a wayside station for what seems to have been an ordinary train, and on arrival in his capital was

conducted to the station buffet. The fantastic saloon, built a decade earlier than the setting of Hope's novel, for the ruler of a real Central European country, King Ludwig II of Bavaria, is understood to be once more on exhibition in the reopened Transport Museum in Nuremberg.

Second Class Sandwiches

I have never been able to afford a first class ticket and probably never shall. But I do not resent the facility for those who can afford it, and I should in any case feel embarrassed if I had to intrude in a first class compartment with my sandwiches.—From a letter to the *"News Chronicle."*

"Happy Birthday to You"

As *"Spirit of Progress"* pulled into Melbourne, Spencer Street Station, from Albury on November 23, a 30-piece band played *"Happy Birthday to You."* The occasion was the 21st birthday of the train. The band also entertained the large number of railway enthusiasts who gathered for that day's arrival in Melbourne of the *"Spirit of Progress."* The locomotive carried a special headboard proclaiming the trains coming of age. Members of the band comprised railwaymen who are working or have worked in Newport Workshops. Several are now engine drivers; one has retired. The band, which makes many charitable appearances, won the "C" grade aggregate in the South Street contest at Ballarat in 1957, and was elevated to "B" grade. Last year it won the street marching section. The *"Spirit of Progress"* connects at Albury with the New South Wales express from Sydney.

Christmas Carols at Euston



Staff of the London Midland Region of British Railways singing carols in the Great Hall at Euston Station (see our issue of December 19)

L.T.S. Calypso

If you want to see the wheels of progress turning
And the fires of engineering genius burning,
Just take a trip from Fenchurch Street
And see the works, not yet complete.
Automatic signalling to speed the trains along,
The flyover at Barking which they're building good and strong.
Just remember, if you're thinking
"My! What a — mess!"
That it all betokens progress on the good old L.T.S.

Diesel locomotives will haul goods trains even quicker,
To give service and deliveries so much slicker.
Marshalling yard and railhead, too,
At Ripple Lane will be quite new.
And in the year at East Ham there'll be a carriage washer,
To free the electric trains from grime and make them look much posher.
If you take the train to Barking or right through to Shoeburyness,
You'll certainly see progress when you travel L.T.S.

M. R.

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

NEW ZEALAND

Bridge Improvements

A 1,181 ft. railway bridge over the Waimakariri River near Kaiapoi, 13 miles north of Christchurch, was brought into use recently when a 2½-mile deviation on which the bridge is located was completed. The first train over the new line, which is only 20 ft. shorter than the old route, was the Picton-Christchurch railcar.

The new bridge, three quarters of a mile upstream from the old, comprises one 21-ft. and 29 40-ft steel spans carried on reinforced concrete piers. It has been located and built to fit in with the river control scheme.

Near Gisborne, in the North Island, a 720-ft. bridge across the Waipaoa River was extended by 360 ft. as part of another flood control project. The operation included the raising of the original bridge structure by 2 ft.

WESTERN AUSTRALIA

Superphosphate Orders

Over 300,000 tons of superphosphates have been ordered for delivery by rail during the months of March and April. This is more than three times the quantity handled during the same period six years ago. Last year, 584,000 tons of superphosphate was despatched during the full season, and of this amount 220,000 tons was delivered over March and April. Although this big tonnage was handled very successfully, the restricted delivery period required a heavy concentration of labour and transport. The large orders for deliveries during March and April of the current season will call for an even greater effort from all concerned. Farmers are therefore being urged to

protect themselves by nominating more deliveries during the months of January and February.

Half-Boom Gates

The first automatic half-boom gates in Western Australia have been installed by the Government Railways on the level crossing near Stokely stopping place, 12 miles from Perth on the South West main line. American Railroad Association standards for half-boom gate mechanisms have been adopted, and the Western Railroad Supply Company (WRRS) model "10," mast-mounted unit has been used. This is operated from a 16 V. d.c. supply.

When a train is 440 yd. from the crossing, the auto gate controls cause lights and bells to operate. After approximately 3-4 sec. the boom arm is released, falling to the horizontal in 15 sec. The bells cease to ring when the boom is 5 deg. from the horizontal position.

Besides the normal mast mounted flashing lights, each boom arm is equipped with three red lamps, two flashing alternatively and one, at the tip, lit constantly. When the train clears the road crossing, the boom restores to the vertical position and latches in about 8 sec. Lights are extinguished when the boom is at 86 deg.

The installation at Stokely is for normal double-line working, but is so arranged that the gates will operate normally in an emergency condition of single line working.

To facilitate the flow of road traffic in the Perth city area, some main level crossings are to be operated with similar half-boom gates. Before these can be installed, automatic signalling will have to be provided on both the up and down main lines between Perth and East Perth.

INDIA

Wagon Building

Approximately 3,100 wagons were built in India during 1947-48, 6,388 in 1952-53, and 17,390 in 1957-58, according to the Deputy Minister of Railways, Mr. Shah Nawaz Khan. The capacity of the builders was assessed in accordance with their actual output. The overall price of the wagons he added had gone up by approximately 20 per cent to 25 per cent in 1951-57 because of increases in the price of steel and in wages, despite higher production.

Coal Supplies

The coal supplied to the railways recently is stated to have been found inferior in quality. Two specially organised inquiries into quality carried out by the railways in 1957-58 showed that there was an increase in coal consumption of about 11 per cent because coal supplied from coalfields in Bengal and Bihar was inferior to specified grades.

Rebate for Export Traffic

In order to help the drive to stimulate exports, the Railway Board decided that, with effect from December 5, 1958, a rebate of 50 per cent should be allowed on freight paid on consignments of nine different commodities, when booked from certain specified stations to ports of export.

The nine commodities are: motor vehicle batteries, dry cells and batteries, oil pressure lamps, hurricane lanterns, steel files, bicycles, textile machinery and parts, wood-screws, and fruit and vegetable preserves.

The concession is a rebate, allowed subject to the prescribed booking procedure being followed and satisfactory evidence being furnished to establish that the consignments have been actually exported from India.

EAST AFRICA

Revision of Railway Tariff

The sub-committee of the Transport Advisory Council appointed to consider appeals against the changes in freight rates which came into effect on January 1, recommended that all 14 appeals should be declined. The appeals, all of which were against the 5 per cent increase, concerned lime, salt, jute and sisal bags, Kyanite, canned fruit and vegetables (and raw materials for the industry), scrap metal, wattle bark and extract, timber, and agricultural produce generally. In six appeals representatives appeared before the sub-committee to amplify representations already made in writing.

The appeals were declined because, in the majority of cases, the sub-committee felt that the industries were cap-



The half-boom gate lowered for the approach of a train

able of bearing the small increase in the railway freight rates. With regard to the appeals submitted by agricultural interests, the sub-committee was impressed by the evidence given, but considered they had no alternative but to recommend that the appeals be declined as they had to assume that when the decision was made to charge the structure of the differential tariff it was realised that this must affect the price to the consumer of maize and other agricultural products consumed in East Africa.

CANADA

C.N.R. Snowploughs

Canadian National Railways snowploughs covered nearly 7,000 miles in November to keep the lines open on the Western Region. This compares with only 304 miles covered during the same period in 1957. Heaviest snow removal work was on Manitoba district where ploughs covered 5,673 miles. More than 600 miles were covered in British Columbia and 459 in Saskatchewan.

UNITED STATES

Proposed Merger in New England

If a proposed merger of the railways in New England were to take place, it would create a precedent by bringing all the Class I railways over a large area under a single ownership, and nearly the whole of the railways in the States of Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, and Maine. The railways concerned are the New York, New Haven & Hartford; the Boston & Maine; the Maine

Central; the Bangor & Aroostook; and the Rutland, with a total route mileage of 5,269, and combined assets of about \$890 million.

The particular obstacle in this case is that whereas the three smaller railways, the Maine Central, Bangor & Aroostook, and Rutland, have still managed to operate at a profit through the recession, the two larger lines have shown a net loss of \$7 million during the first nine months of 1958. When the New Haven and the Boston & Maine were discussing amalgamation last year, the project was opposed by the Committee of Transportation of the New England Governor's Conference on the ground that it would destroy competition, though the committee would have favoured a fusion of either with one of the major trunk lines further south.

JUGOSLAVIA

Fast Railcar Services

The State Railways are to introduce fast diesel railcars to link Belgrade with other principal cities. Three services will commence on May 31 and run daily throughout the year, between Belgrade and Ljubljana ("Slovenia Express"), Sarajevo ("Bosnia Express") and Skopje ("Macedonia Express"). The other two, linking Belgrade with Rijeka and Split ("Kvarner Express") and "Jadran Express") will run only in summer. The time of 4hr. 13 min. by the east-bound "Slovenia Express" for the 260 miles from Zagreb to Belgrade compares with 6 hr. 40 min. by the fastest existing train. Long-distance operation of diesel railcars in Yugoslavia has

hitherto been limited largely to the narrow-gauge lines in Bosnia, on which three-car Ganz units were introduced before the war of 1939-45.

FRANCE

Couchette Accommodation

Considerable developments in *couchette* facilities have been made by the S.N.C.F. since the introduction, in June, 1956, of the two-class system for passengers on European railways. At that time there were 3,000 first class and 9,000 second class *couchettes* available in French National Railways trains. By January 1, 1959, the number was 3,600 first class and 21,200 second class *couchettes*, whilst by January 1, 1960, these figures will have gone up to 4,300 and 27,900 respectively. As a result, the S.N.C.F. now feels the moment opportune to reduce the charge for a second class *couchette*, which will, on January 10, become 1,300 francs (22s.) if the journey is less than 435 miles.

Market Station at Chateaurenard

At Chateaurenard, near Montargis, in the South Eastern Region, some 70 miles from Paris, a combined rail-road market station for fruit and vegetables was inaugurated in December. Work is still continuing, and when completed the market will occupy a 10-acre plot. There are parking facilities for 700 road vehicles (this will be increased to 1,000), whilst a double track railway line terminates in a building 164 ft. x 98 ft. The present market, which is badly laid out and difficult of access both by rail and road, handles 100,000 tonnes of merchandise a year, of which about one-half is moved by rail.

Publications Received

Overseas Railways 1958. London, S.W.1: *The Railway Gazette*, 33, Tottenham Street. 11½ in. x 8½ in. 124 pp. Fully illustrated. Paper covers. Price 7s. 6d.—General managers and other senior officers on railways in the British Commonwealth or in countries where British practice generally is followed, describe developments on their systems in 1957-58 in many spheres of railway activity. The most recently formed railway in the Republic of India, the North East Frontier Railway, which was detached from the North Eastern Railway in January, 1958, is the subject of an article which shows the progress already made and enumerates the plans for improving facilities, including the bridge over the Brahmaputra. Of special interest is the article describing what has been done during the past five years by Coras Iompair Eireann to replace steam by diesel traction, the methods of servicing and maintaining diesel locomotives, and the operating improvements and economies achieved. Signalling and permanent way are being improved to deal with increased traffic on most railways and in several

fast-developing territories new lines are planned or already under construction. The maps, a valuable feature of this publication, have been brought up to date.

Locomotives d'Hier et d'Aujourd'hui. (Locomotives of Yesterday and Today.) By Vauquesal-Papin. Paris, 7c: Editions des Arts et Manufactures, 19, Rue Ernest Psichari. 8½ in. x 7 in. 88 pp. Illustrated. Price 1,500 francs.—Various classes of French steam, electric, and diesel locomotives are illustrated, with brief notes and principal characteristics and dimensions. The earliest engines, starting with a 0-4-0 built by Stephenson in 1834 for the Lyons to St. Etienne line, are depicted in contemporary drawings. The earliest photograph reproduced is that of *La Scarpe* (1844) of the Chemin de Fer du Nord. Curiosities include the replicas of the Highland Railway "Castle" class 4-6-0s supplied by the North British Locomotive Co. Ltd. in 1911 to the Chemins de Fer de l'Etat, to meet, it is reported, an acute shortage of motive power. Most of the classic French express locomotives of the last 60 years are featured. Many

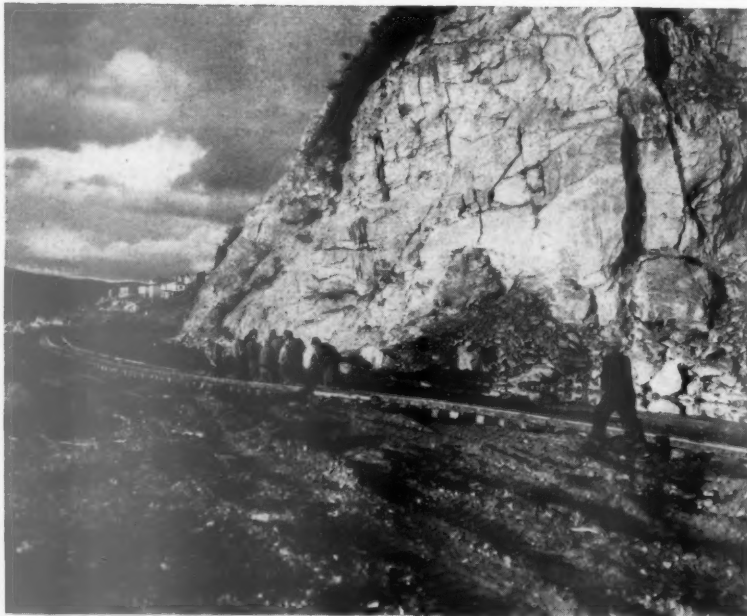
facts are recorded in a small compass, but the style is conducive to pleasant reading.

The Bicentenary of Robert Burns.—A folder issued by British Railways, Scottish Region, to mark the bicentenary of the birth of Robert Burns includes a short biography of the poet, with coloured insets depicting persons and places associated with his life and characters created by him. There are notes on the various celebrations, which begin with the Bicentenary Dinner at Kilmarnock on January 24 and include a pageant at Ayr in June, brief indications of British Railways ticket and other facilities for tourists in Scotland, and a map of railway routes in the "Burns Country" (S.W. Scotland).

Calendars for 1959.—We have received calendars for 1959 from the East African Railways & Harbours; Holman Bros. Ltd.; Chloride Batteries Limited; the Hunslet Engine Co. Ltd.; Harrison & Sons Ltd.; Shell-Mex Limited; British Transport Hotels; the Department of Railways, New South Wales; and Les Chemins de Fer Fédéraux Suisses.

Corner Brook Marshalling Yard, C.N.R.

Blasted rock used to reclaim land from sea for yard serving 3-ft. 6-in. gauge Newfoundland District system



Track laying in progress at the eastern end of the yard

THE Canadian National Railways marshalling yard being built on land reclaimed from the sea at Corner Brook, Newfoundland, a major railway centre in that province, is making good progress.

Railway operations at Corner Brook have long been hampered by lack of space. With the rapid growth of the city and its surrounding areas, the problem of efficient handling of traffic has been intensified yearly. The new yard will provide the C.N.R. with a base from which to obtain smoother operating results throughout the 3 ft. 6 in. gauge Newfoundland District.

The yard will have a capacity of 470 wagons and is being built on land

reclaimed from the Humber Arm. Construction has involved blasting and dumping a mountain of rock fill material, more than 500,000 tons, into the harbour. This extends the railway right of way by as much as 200 ft. along a distance of nearly a mile. Some 500,000 cu. yd. of heavy coarse rock were used on the outside wall. The yard will extend eastward from a point near the Western Terminals property, and the completed installation will include the C.N.R. property.

Layout

Ballasting operations and track layout are now in progress. There will be 11 new tracks laid with a capacity of

307 wagons; a passing track to accommodate 65 wagons; a switching track for 22 wagons; and a three-wagon express track. The capacity of the existing team tracks will be increased by 32 wagons.

To obtain maximum efficiency, the main line leading towards Humbermouth has been lowered, in some places as much as 14 ft. This provides an approach and departure track with a more favourable grade than previously existed.

Servicing Facilities

New servicing facilities will include a turntable, oil bunkers, sand tower, diesel shop and wagon repair depot, wheel storage facilities, and a wagon weigh bridge.

Paved roadways will be constructed to provide easy access for road vehicles to the area, and the present roadway fronting the station and freight sheds will be paved along its entire length.

Freight Sheds

The present freight sheds are to be enlarged to increase their capacity by 60 per cent, with resultant efficiency in reception, sorting, and despatch of goods.

An express freight building will be constructed to the west of the present station, and adjacent to the freight sheds. A special siding is to be built for express freight, so that wagons can be quickly separated from arriving trains and shunted directly to the receiving doors, avoiding the necessity of sorting goods in the wagons.

With the removal of the express section from the station building, the space available for C.N.R. offices and public waiting rooms will practically double in size.

The yard will be completed by early 1960, and will cost \$1,500,000. The principal contractor is Foundation Maritimes Limited of Halifax.

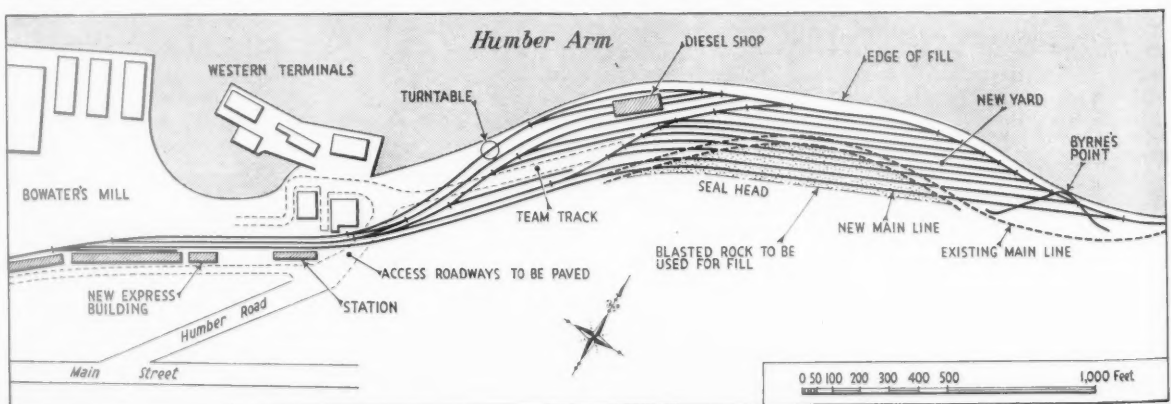
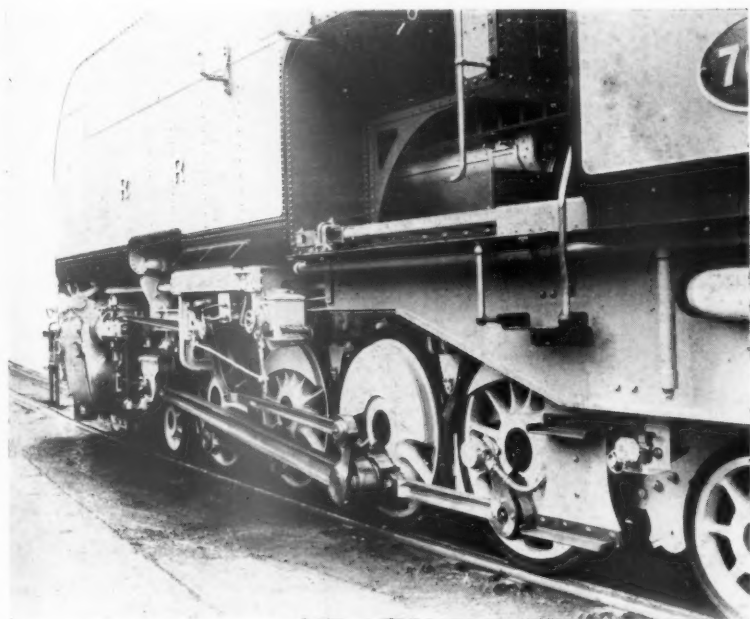


Diagram of track layout at Corner Brook marshalling yard

Rhodesia Railways "20A" Class Locomotives

*For working trains of up to 2,000 tons:
axle loading permits use on 80-lb. rail*



The hind engine unit: trough of mechanical stoker is seen below coal bunker

FOR many years there has been a large annual increase in the amount of traffic on the Rhodesia Railways, both on ton-mile and train-mile bases. To cope with the volume offering, the Railway administration has carried out much expansion and improvement in recent years, including extensive re-laying with 80-lb. rail, and increasing the motive power resources. In the year ended March, 1958, the traffic carried created a new record. Tonnage amounted to 11,682,812, which is almost three times that handled in 1947.

Beyer-Garratt locomotives, since their introduction by the Rhodesia Railways in 1926, with the help of good maintenance and skilful utilisation, have been responsible for working the bulk of the heavy traffic. Orders for this type of locomotive have totalled 250 engines of different wheel arrangements and capacities. Among the outstanding examples are the "15th" class, introduced in 1940. Some of them have achieved a mileage of 10,000 a month, and several have covered well over 1,000,000 miles. After 18 years' arduous service these engines are fully able to cope with most exacting demands. Credit for the successful results obtained must be shared by the designers, builders, and those charged with the operation and maintenance.

Deliveries in recent years have included the "20th" Class Beyer-Garratt locomotives, 15 of which were built in 1954. These locomotives, described in our issue of January 28, 1955, were the first designed with the heavier axleload

permitted by the use of 80-lb. rail, and can handle trains of 2,000 tons. It will be recalled that they incorporated many new features contributing both to efficiency and to high availability. Among them may be mentioned the Hadfield precision power reverser, the Standard mechanical stoker, and roller-bearing axleboxes on the carrying axles.

While the design of the "15th" class

incorporated many features calculated to reduce attention and increase availability, at the time the class was built, the Beyer Peacock self-adjusting pivot had not been introduced. This is another feature which was incorporated in the "20th" class, and it has proved to be one of the most important improvements in articulated locomotive design. Continuously immersed in an oil bath, the amount of wear on the new pivot is extremely small, and it is automatically and immediately taken up.

Not only does the absence of play in the joint improve the already-good riding properties of this type of locomotive, but it has the important effect of preventing any slack developing, with its associated detrimental results on steam pipe joints, and so on. Dismantling of the pivot centres for examination, when the locomotive is shopped for general repairs, is no longer necessary.

In view of the satisfactory general performance of the "20th" class it was decided to repeat the design, and in 1956 an order was placed for an additional 46 locomotives of this type, aggregating 3,000,000 lb. in tractive effort. Six of the locomotives supplied against this order were identical with the engines formerly delivered; the remaining 40, known as the "20A" class and numbered to 760, embodied slight modifications. The "20th" class had bogie and truck wheels of differing diameter, whereas in the "20A" class the dia. of 2 ft. 9 in. is common to all carrying wheels.

The fuel used is locally mined at



Magnets of Integra approach warning device

Wankie Collieries. The Standard mechanical stoker and the Waugh fire-gate, both also used on the "20th" class, enable all demands on the boiler to be met. In this connection the Beyer-Garratt design has considerable advantages, as the practical absence of restrictions on boiler dimensions enables free-steaming at economical rates of combustion to be achieved easily, even if the fuel is of poor quality.

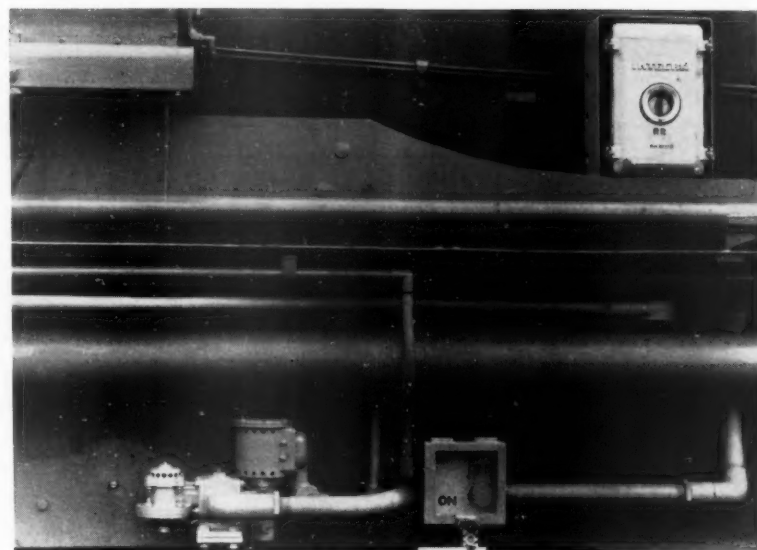
Items of equipment and their sources of supply are similar to those of the "20th" class, with the exceptions that the mechanical lubricators on the later engines are supplied by Davies & Metcalfe Limited, and the boiler mattresses in this case, are those manufactured by J. W. Roberts Limited.

Approach Warning System

Two of the locomotives have been equipped with approach warning devices (Integra System). As its name implies, this system is devised to give ample warning to a driver by audible and visual means that he is approaching a place where his special vigilance is required.

Magnets are placed between tracks at places where it is necessary to warn the driver. These operate the receiving relays fitted to the locomotive, which in turn are connected, via an apparatus case containing automatic switching mechanism, to a cancelling button, a visual control unit, and a warning horn.

The receiving relays cause the horn to sound and a blue light on the visual control unit to extinguish. If the driver does not heed this warning and cancel it by the push-button which is placed below his side window in the cab, then within six seconds of the horn sounding an emergency brake application will be made, a red light will be switched on and an electrical counter in the visual control unit will advance



Automatic application valve of Integra approach warning device

one number. The driver cannot then restore the correct functioning of the approach warning gear until he brings the train to rest, climbs out of the cab and re-adjusts the handle on the apparatus case.

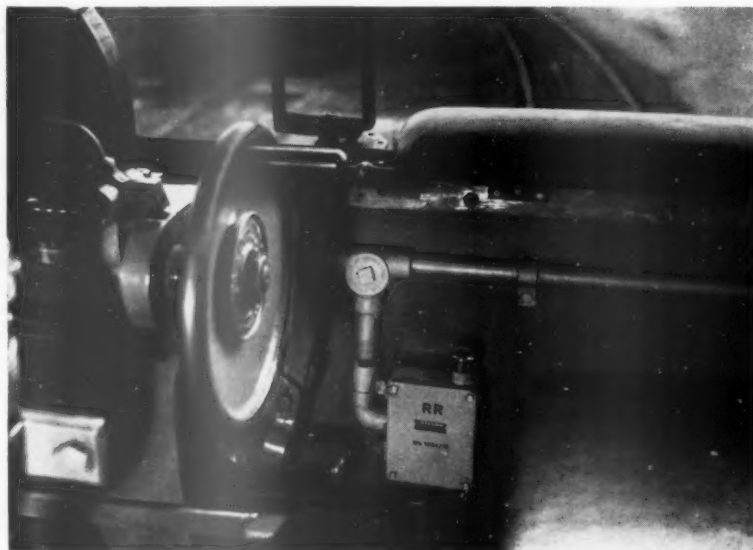
After the journey the visual electrical counter can be checked and the reason for any emergency brake applications made during the journey can be ascertained from the driver.

Initially, the equipment on the locomotive must be set by the driver for forward or reverse direction of the locomotive, whichever applies, before commencing the journey as, if this adjustment is incorrect, the approach warning device will function at every track magnet irrespective of the direction of travel for which the warning is intended.

Principal dimensions of the locomotive are as follow:—

	ft.	in.
Gauge	3	6
Coupled wheels, dia.	4	3
Bogie and truck wheels, dia.	2	9
Length over buffers	95	0½
Cylinders (4) dia. by stroke	20 in.	26 in.
Axleload	17	tons
Total weight in working order	225	tons
Boiler pressure	200	lb. per sq. in.
Heating surface:—		sq. ft.
Tubes	2,791	
Firebox, incl. arch tubes	233	
Total evaporative	3,024	
Superheater (inside)	748	
Total	3,772	
Grate area	63.1	sq. ft.
Tractive effort at 85 per cent boiler pressure	69,330	lb.
Coal capacity	14½	tons
Water capacity	8,000	gal.

(Continued on page 44)



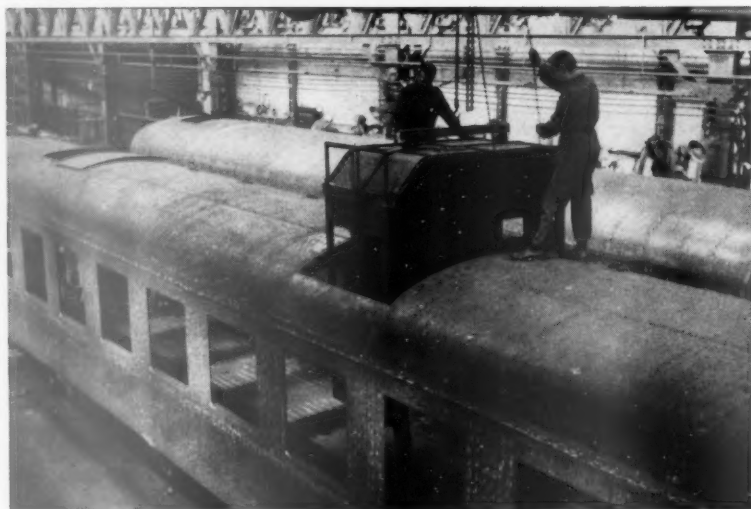
Cancelling button for approach warning below right-hand side window of cab



Visual control, and warning horn

Simplified Passenger Coach Construction

Use by French builders of prefabricated compartment units to ensure quicker repair and cheaper maintenance



Lowering prefabricated half-compartment through roof aperture

WITH the encouragement of the French National Railways, certain French manufacturers of railway rolling stock have been studying simplification of design and materials without deterioration of standards. The problem is stated to have been aggravated by difficulties in obtaining orders partly because French standards, and, therefore, prices seemed higher than necessary.

The Ateliers de Construction du Nord de la France (A.N.F.), in co-operation with the S.N.C.F., recently built, and exhibited at Paris Saint Lazare terminus, the prototype of an "economic coach." The aim in designing this, a 10-compartment, side-corridor, second class vehicle was to reduce the capital cost, and to ensure quicker repair and cheaper maintenance.

Prefabrication

Departing from the orthodox coach construction methods, whereby a metal body is first constructed and subsequently equipped with partitions, seats, lighting, heating, and other fittings, A.N.F. decided to make as much use as possible of prefabrication. The body was designed to facilitate introduction of prefabricated sections through a trap-door opening in the roof. This opening extends over the full width of the coach roof and occupies the space between two curved metal roof members. These latter replace the more usual tympan metal plate system of roof construction, both to facilitate the provision of an opening and to facilitate the securing of the prefabricated units.

To obviate the possibility of a weak

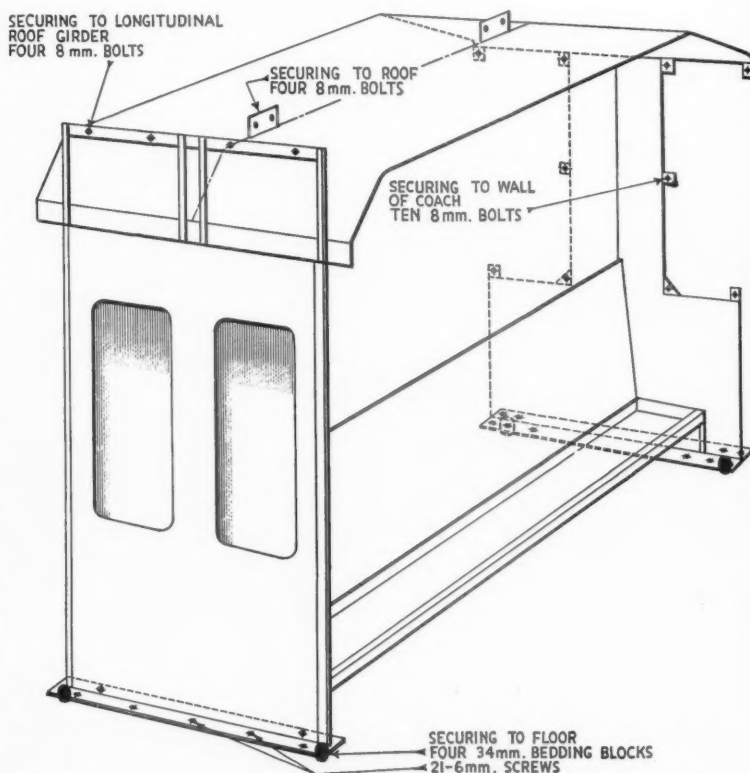
point, the roof around the opening was reinforced. In addition, a metal framework is bolted into place, on which

the removable roof section is secured. To ensure that the roof remains watertight, the joint is sealed with neoprene.

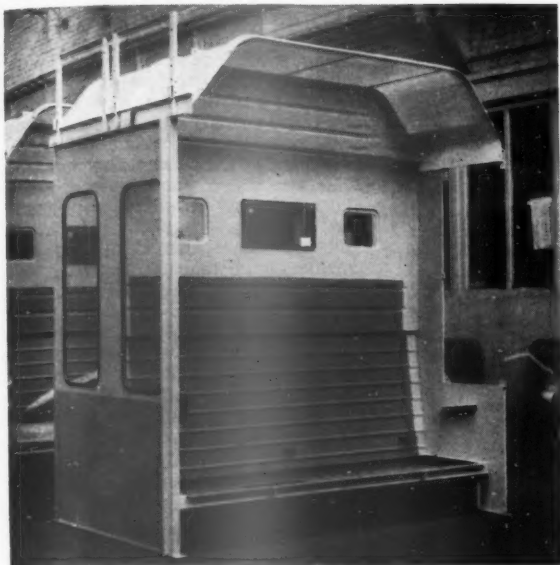
Half-Compartments

The prefabricated units consist mainly of two half-compartments, back-to-back, to form parts of adjacent compartments. They include the transversal and side bulkheads, entirely of metal construction, on which are fixed ceiling, seats, and luggage racks, all of which can be carried out on the continuous assembly principle. Considerable use is made of welding. Before being installed in the coach body, the units are fully equipped with furnishings and fittings, and are painted. Certain units are made up of a half-compartment and toilet compartment, the latter equipped with a wash basin and w.c.

After units have been lowered through the roof opening into the coach body, they are moved along the floor of the coach to their final positions where they are bolted to the floor, roof, and coach wall, as shown in the accompanying diagram. The manufacturers claim not only that



Method of securing prefabricated units to ceiling, floor and side wall of coach



Complete painted half-compartment before lowering into body of coach



Roof opening through which prefabricated units are lowered. Note reinforcement

construction costs are much lower than by the more orthodox methods, but that sections can be easily removed by the same process for repair or replacement.

The decision to prefabricate sections consisting of half-compartments back-to-back, rather than complete compartments, was taken as the resulting units were smaller, there being no need to take into account the space between the seats, whilst the prefabrication work itself was easier.

There was no departure from the normal S.N.C.F. standards in respect of the bogies and the outside walls of

the coach body. The only way in which the external appearance of the prototype differed from that of other modern S.N.C.F. coaching stock was the roof opening.

New Interior Features

Internally, a considerable number of differences are apparent. A simple type of false cornice has been installed along the ceiling above the entrance vestibule and along the corridor, that on the compartment side providing readily accessible space for electrical circuits, alarm circuits and for the mounting of the sliding compartment

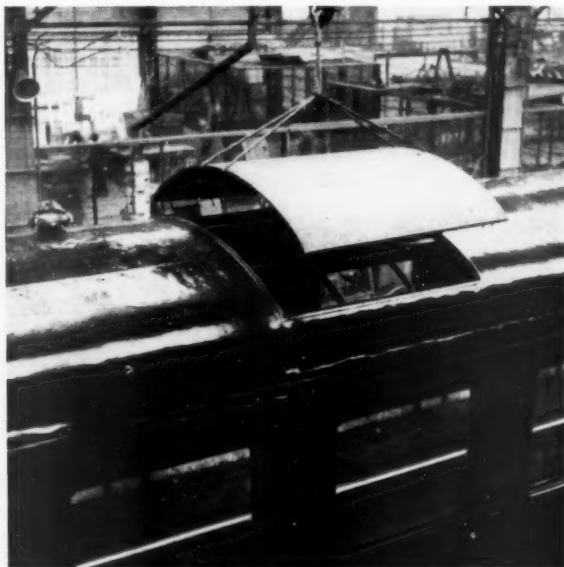
doors, thus simplifying maintenance. The ceiling of the corridor is composed of painted corrugated steel sections. These are articulated to give easy access to the electrical circuits, etc. Certain windows, particularly those on the corridor side of the compartments and those of the toilet compartments, are mounted in rubber frames, similar to the practice of the motor-car industry.

Use of Materials

Because of their high cost, little use has been made of laminated products. This has been largely replaced in the



After lowering and before moving along floor to final position in coach



Roof opening before affixing sheeting, showing welded roof members



compartments and toilets by sheet steel coated with special hard-gloss self-drying paint, the condition of which will be closely watched as there is a risk that the initial saving might be offset by higher maintenance cost. Some use has been made of plastics, particularly in the toilet compartments. Thus w.c. cisterns and pipes are made of special types of laminated polyesters and polyvinyls respectively. In the toilet section, which is divided by a partition from the w.c., the water inlet fitting to the wash basin and a shelf above the basin are made of stainless steel as are the picture frames in the passenger compartments. For the luggage racks a light aluminum/steel alloy has been used. Other innovations in the compartments include push-button control fluorescent lighting and curtains instead of blinds.

End of corridor, showing articulated ceiling section. False cornice for electrical circuits and door mounting on left

Rhodesia Railways "20A" Class Locomotive

(Concluded from page 41)

The Rhodesia Railways place considerable reliance on the "20th" and "20A" classes for working much of their heavy traffic. The 60 engines are shedded at Bulawayo, Livingstone and Broken Hill. They operate all trains, passenger and freight, between Thompson Junction and Livingstone, and Broken Hill and Kafue. On the last-mentioned severe section loads of 1,400 tons are handled on long grades of 1 in 65. The working between Broken Hill and Ndola is being gradually taken over and will shortly be entirely carried out by locomotives of these classes. They are also to be found on heavy trains between Bulawayo and Wankie,

and additionally make trips to Gwelo. From Wankie to Bulawayo permitted loading is 1,950 tons and on the Bulawayo - Gwelo section 1,650 tons.

The design is to the requirements of the Chief Mechanical Engineer of the Rhodesia Railways. The contract was under the supervision of Messrs. Freeman, Fox & Partners, consulting engineers to the railway.

NEW SIGNALBOX AT HEST BANK, L.M. REGION.—A new signalbox was opened on December 21 at Hest Bank, British Railways, London Midland Region, on the main line between Lancaster and Carlisle, replacing the old box which was life expired. Opportunity was taken to simplify the permanent way layout and erect the new box on a site adjacent to the level crossing. This enables the signalman to control the crossing gates and

eliminate the need for a crossing keeper. The gates are now operated from the signalbox and interlocked with the signals. The signalbox is of composite construction and houses a standard frame of 30 levers, the gate wheel, and the token instrument for the single line between Bare Lane and Hest Bank. With the altered permanent way full track circuiting has been installed and the down main home signal has been renewed in colour-light form. Starting signal control has been provided on all signals which give access to the single line.

LONDON TRANSPORT NEW BUS MAP.—A new type of pocket bus map, concentrating on 15 essential key routes which cover inner London, has been introduced by London Transport. The map is intended specially for visitors. It shows a limited number of main routes which have been specially chosen to provide a simple network for sightseeing. The area covered is from Kensington to Aldgate.

British-Built Locomotives in Nyasaland



Nyasaland Railways 3-ft. 6-in. gauge "G" class 4-6-2 locomotive No. 57 "Jubilee," built by the North British Locomotive Co. Ltd.

RAILWAY NEWS SECTION

PERSONAL

Colonel J. R. H. Robertson has been appointed an Inspecting Officer of Railways, Ministry of Transport & Civil Aviation.

Mr. Hubert Hull, C.B.E., President of the Transport Tribunal, who has been awarded a Knighthood in the New Year Honours List, was born in 1887. Mr.

Brown, Regional Accountant (Designate), Eastern Region, since March, 1958, has been confirmed as Regional Accountant, Eastern Region.

Mr. H. Andreson (Denmark) will be President of the International Congress on Combustion Engines (C.I.M.A.C.), to be held at Wiesbaden, June 14-19. The five Vice-Presidents will be Mr. W. K. G. Allen (Great Britain), Mr. A. Bourlet

Staff Association's Regional Council and a member of the Western Region's "Helping Hand" Fund Committee.

Mr. C. T. Hutson, O.B.E., A.M.Inst.T., Chief Commercial Superintendent, East African Railways & Harbours Administration, who has been awarded the C.B.E. in the New Year Honours List, was born in 1906 and received his early railway training with the London & North



Mr. H. Hull

President of the Transport Tribunal,
Receives a Knighthood



Mr. C. T. Hutson

Chief Commercial Superintendent, E.A.R. & H.,
Awarded the C.B.E.

Hull was called to the Bar in 1910. During the 1914-18 war he became a temporary Civil Servant and was Junior Counsel to the Ministry of Agriculture & Fisheries and to the Commissioners for Crown Lands. From 1939 to 1948 he was Assistant Procurator-General. He served as one of four official referees of the Supreme Court 1949-50, and was a member of the Royal Commission on the Press in 1947. Mr. Hull has been President of the Transport Tribunal since 1951.

Mr. J. G. P. Hamilton, Chief Mechanical Engineer, Rhodesia Railways, will proceed on pension on February 2. He will be succeeded by Mr. H. J. Castle, Assistant Chief Mechanical Engineer. Mr. H. J. L. Dolan, Mechanical Engineer, Bulawayo, becomes Assistant Mechanical Engineer, Rhodesia Railways.

Mr. T. R. Hawkes, Regional Accountant, Eastern and North Eastern Regions, British Railways, has retired. Mr. W.

(Belgium) Mr. R. de Pieri (Italy), Mr. R. Keller (Sweden) and Prof. Dr. E. Sörensen (Germany). We refer to the conference editorially this week.

Mr. D. H. Minett has relinquished his appointments as Managing Director of Lamp Manufacturing & Railway Supplies Limited, after 21 years of service, and as Director and Manager of Planwell Engineering Limited. Mr. F. A. Barnes, Secretary of the parent company, becomes Managing Director of both companies.

We regret to record the death, on January 3 after a long illness, of Mrs. C. R. Dashwood, wife of Mr. C. R. Dashwood, Chief Accountant, Great Western Railway and Western Region, British Railways, until his retirement in 1953. Mrs. Dashwood was for many years president of the Women's Section of the Staff Association of the Western Region. She also was a member of the

Eastern Railway in the North Eastern Area. He joined the Kenya & Uganda Railways & Harbours in July, 1929, and, after holding various appointments in the Transportation Department, was promoted to be Assistant Superintendent in 1939. In December, 1945, he became Assistant Superintendent of the Line, and was appointed Chief Commercial Superintendent in 1952.

Mr. B. A. Coulson, Traffic Costing Officer, York, British Transport Commission, has been appointed Principal Traffic Costing Officer, York.

Mr. C. S. Wood, Assistant Treasurer, Eastern and North Eastern Regions, British Railways, has been appointed Treasurer, Eastern Region. The appointment results from a decision to establish separate accountancy organisations for each of the two regions. Until the appointment of a treasurer for the North Eastern Region, Mr. Wood will supervise the department in that region.



Mr. M. J. Patel

Appointed Deputy General Manager,
Western Railway of India



Mr. R. W. H. Seymour

Stores Superintendent, Malayan Railways,
1957-58



Mr. J. G. Hazeldine

Appointed Chief of Traffic Department,
General San Martin Railway

Mr. M. J. Patel, B.E., A.M.I. Struct.(Eng.), A.M.I.C.E.(Ind.), Deputy Chief Engineer, Western Railway of India, who, as recorded in our November 28 issue, has been appointed Deputy General Manager, was born in Bombay in 1915. He was educated at St. Xavier's College, Bombay, and at Poona Engineering College, from which he graduated as a B.E. in 1938. He joined the former Bombay, Baroda & Central India Railway as a student engineer in 1939. In 1941, he took charge of the Broach Sub-Division, where he served as an Assistant Engineer until 1945. From early 1946 to August, 1947, he carried out surveys for new lines between Bulsar and Dharampur, Kotah and Ajmer, and Bombay and Sind. He worked as Divisional Engineer in Kotah, Bombay and Abu Road, from 1947 to 1950, when he was transferred to the Railway Construction Department as

Executive Engineer in charge of the Kandla-Deesa Railway Construction. He later went to Indore, as Executive Engineer, in charge of the Indore-Ujjain broad-gauge construction. In May, 1956, he was promoted to be Deputy Chief Engineer, Survey & Construction, in charge of the doubling of the broad-gauge main line between Godhra and Ratlam. In May, 1957, Mr. Patel was transferred to Bombay on open line, as Deputy Chief Engineer, and he took up his present appointment last September.

Mr. R. W. H. Seymour, M.I.R.S.E., Stores Superintendent, Malayan Railway, who, as recorded in our December 26 issue, has retired, was educated at Clyde House and Reading School. He began his career with the Signal Department of the former Great Western Railway in 1930. He was subsequently engaged on

new works at Paddington and Bristol, receiving his technical training at the Regent Street Polytechnic. He later was appointed to the Headquarters Staff of the Signal Engineer, G.W.R. In 1938 Mr. Seymour was appointed Divisional Inspector (Signal & Telegraph), Sudan Railway, and was engaged on the provision of signalling to handle heavy military traffic. He was commissioned in the Royal Engineers, in 1943, on his return to the United Kingdom, and was posted to No. 3 Railway Construction Group. He served with that Group throughout the North-East European campaign. Following a posting to Malaya, in 1945, Mr. Seymour resumed his civilian career, in 1946, on his appointment as Engineer, Signal & Telegraph, Malayan Railway. Mr. Seymour was responsible for the immediate re-organisation of the Signal & Telegraph Branch, and for the post-



The late Mr. G. Wynne Davies

Commercial Officer, Southern Region,
British Railways, 1958-59



Mr. S. B. Lovegrove

Appointed Assistant Line Traffic Officer,
(Operating), Crewe, L.M. Region



Mr. G. R. Chrimmes

Appointed Train Running Assistant,
Waterloo, Southern Region

war rehabilitation of signalling installations. He was promoted to be Executive Engineer, Signal & Telegraph, in 1952; Assistant Chief Engineer (Signals) in 1956, and Stores Superintendent in 1957.

Mr. Justo Guillermo Hazeldine, who, as recorded in our December 19 issue, has been appointed Chief of the Traffic Department, General San Martin Railway, Argentina, joined the Buenos Aires & Pacific Railway at the age of 11. He became, successively, telegraph operator, clerk and Station Assistant. In 1939 he was appointed Stationmaster, and, eight years later, he became Assistant Traffic Inspector at Justo Daract. In 1949 he was transferred to San Juan, where, in 1952, he was made Traffic Inspector. He was promoted to be Chief of the Central Zone, Villa Mercedes, in 1953, and Assistant Chief, Traffic Department in 1955. Mr. Hazeldine was appointed Acting Chief in April 1958 and Chief six months later.

We regret to record the death on January 5, at the age of 54, of Mr. G. Wynne Davies, O.B.E., E.R.D., M.A., M.Inst.T., Commercial Officer, Southern Region, British Railways. Mr. Wynne Davies was educated at Repton and Clare College, Cambridge. He joined the Southern Railway in 1926, and, in 1928, was selected as one of the first of its cadets. He was appointed Assistant to the Road Transport Liaison Officer in 1932. In 1935 he became Assistant to the London (East) Divisional Superintendent; in 1938, General Purposes Officer to the General Manager and, in 1943, Assistant Secretary to the company. During the war he served in France, North Africa, and Italy, and in the U.K. He was mentioned in dispatches four times, awarded an O.B.E. (Military Division), and attained the rank of Colonel. On his return to the Southern Railway he became Assistant Public Relations & Advertising Officer, until he assumed the responsibilities of the Public Relations & Advertising Officer, Southern Region, British Railways. From 1948 to 1953 he was Publicity Officer to the Railway Executive, and in 1954 was appointed Assistant Commercial Superintendent, Southern Region. Mr. Wynne Davies became Commercial Officer, Southern Region, last August. A memorial service will be held, details of which will be announced later.

Mr. S. B. Lovegrove, District Operating Superintendent, Liverpool (Lime Street), London Midland Region, British Railways, who, as recorded in our December 12 issue, has been appointed Assistant Line Traffic Officer (Operating), Crewe, began his railway career at Stratford, on the former Great Eastern Railway, in 1920, as a junior clerk in the office of the Locomotive Accountant. He was selected as a traffic apprentice by the L.N.E.R. in 1927, and, after a period of training, was appointed Assistant Yardmaster at Ferme Park. A year later, he became Stationmaster at Dunford Bridge, and, in 1933, was appointed Deputy Chief Controller, District Superintendent's Office, Manchester. Between 1937 and 1944, Mr. Lovegrove was successively Yardmaster at Sheffield and at Grimsby Docks, Super-numerary Assistant to the Superintendent, Eastern Section, and to the Trains Assistant, District Superintendent's Office, Cambridge. In 1944, he became Acting Assistant District Superintendent, Leeds, and was confirmed to this position in 1945. In the same year he became Acting Assistant District Superintendent, Godley

(Manchester), and returned to his former position at Leeds in 1946. Mr. Lovegrove became Assistant District Superintendent, Manchester, in 1947, and a year later was appointed Assistant District Superintendent, Stratford, Eastern Region. Mr. Lovegrove was appointed District Operating Superintendent, Birmingham (Western), in 1951, and District Operating Superintendent, Liverpool, Lime Street, the position he now vacates, in 1954. He was awarded the Brunel Medal in 1926, for transport subjects at the London School of Economics.

Mr. G. R. Chrimes, A.M.I.Loco.E., Acting Assistant to the Motive Power Officer, Waterloo, Southern Region, British Railways, who, as recorded in our November 28 issue, has been appointed Train Running Assistant to the Motive Power Officer, Waterloo, was educated at Dulwich College and Croydon Polytechnic. Mr. Chrimes joined the Southern Railway in 1940 as a premium apprentice at Brighton Works. His apprenticeship included a period in the locomotive testing section, the drawing office and in materials inspection in the Midlands and South Wales. In 1946, he was appointed Junior Assistant Foreman, Nine Elms Motive Power Depot, and, in the following year, Locomotive Foreman, Basinstoke. In 1948, he took up a similar appointment at Barnstaple, and in 1949, became Locomotive Shedmaster, Perth, Scottish Region. In 1951, Mr. Chrimes went to March, Eastern Region, as Locomotive Shedmaster, and in September 1954, he was appointed Assistant District Motive Power Superintendent at Chester. Two years later he returned to the Southern Region and was appointed Assistant District Motive Power Superintendent, Woking. He became Acting Mechanical Assistant in January of last year. Mr. Chrimes is a member of the Army Emergency Reserve, in which he holds the rank of Captain in 156 Railway Squadron, Royal Engineers.

Mr. A. G. Dawson, Treasurer, Eastern and North Eastern Region, British Railways, has been appointed Assistant Regional Accountant, Eastern Region.

The New Year Honours List

In the list of New Year Honours published in last week's issue the name of Mr. J. A. Milne, Chairman & Managing Director, J. Samuel White & Co. Ltd., was incorrectly given as Mr. J. A. Hiline. The following is a further selection of New Year Honours of transport and industrial interest:—

Order of Merit

Field Marshal Earl Alexander of Tunis, Chairman, Northern Aluminium Co. Ltd.

K.C.M.G.

Sir Roy Welensky, Prime Minister, Minister for External Affairs and Minister of Defence, Federation of Rhodesia & Nyasaland. Former Minister of Transport & Communications.

C.B.E.

Mr. F. S. Blomfield, Office of Crown Agents for Overseas Governments & Administrations.

Mr. L. Heycock, Engine Driver, Duffryn Yard, Port Talbot, Western Region, British Railways, Chairman of the Glamorgan Education Committee.

Mr. C. T. Hutson, Chief Commercial Superintendent, East African Railways & Harbours Administration.

Mr. T. H. Moffatt, formerly Deputy-General Manager, Scottish Region British Railways.

Mr. R. H. Schlötel, Director, Engine Research & Development, Ministry of Supply.

Mr. S. H. Watson, for services to transport organisations in South Australia.

O.B.E.

Mr. F. Donachy, formerly Scottish Organiser, National Union of Railwaymen.

Mr. A. P. Evans, Deputy Chief Mechanical Engineer, Office of Crown Agents for Overseas Governments & Administrations.

Mr. G. W. Harvey, a principal in the Vehicle Regulation & Taxation Division, Ministry of Transport & Civil Aviation.

Mr. N. C. Taylor, formerly Manager, Salvador Railway Co. Ltd.

M.V.O. (5th Class)

Mr. W. J. Richards, Chief Passenger Train Inspector, Western Region, British Railways.

M.B.E.

Mr. J. H. Baxter, Apprentice Training & Welfare Officer, Parsons Marine Steam Turbine Co. Ltd.

Mr. J. C. Brown, Harbour Engineer, Isle of Man.

Mr. T. G. Brown, Chief Lineman, London Midland Region, British Railways.

Mr. W. D. Childs, Telecommunications Technical Officer, Grade I, Ministry of Transport.

Mr. L. Edwards, Divisional Traffic Manager, Bristol, Western Region, British Railways.

Mr. A. C. Emery, Chief Draughtsman, Telecommunication Group, the Plessey Co. Ltd.

Mr. W. Frank, Chief Engineer, Shell Tankers Limited.

Mr. F. Green, Higher Executive Officer, Ministry of Transport & Civil Aviation.

Mr. R. H. E. Hosking, Higher Executive Officer, Ministry of Transport & Civil Aviation.

Mr. J. Keating, Organising Secretary, Agricultural Workers', Northern Ireland Section, Amalgamated Transport & General Workers' Union.

Miss H. Lewis, Women's Welfare Officer, Appleby-Frodingham Steel Co. Ltd.

Mr. B. J. J. Moran, Gardening Superintendent, London Transport Executive.

Mrs. R. M. Munford, Executive Officer, Ministry of Transport & Civil Aviation.

Mr. F. Price, Head Foreman Sheet Metal Worker, Cammell Laird & Co. Ltd., Birkenhead.

Mr. J. Randell, Chief Ship Draughtsman, John Brown & Co. Ltd.

Mr. N. A. Shaiffa, Clerk, Grade IV, East African Railways & Harbours Administration.

Mr. E. H. Simper, Divisional Traffic Superintendent, Birmingham & Midland Motor Omnibus Co. Ltd.

Mr. J. S. H. Stevenson, formerly Director of Institute of Marine Engineering Training, Calcutta.

Mr. E. N. O. Smith, Permanent Way Inspector, Grade I, East African Railways & Harbours Administration.

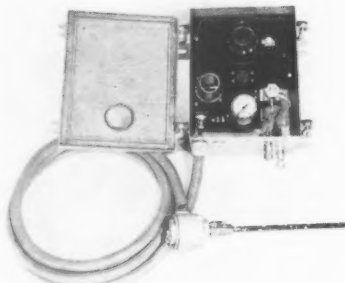
Mr. E. W. L. Tiddy, Manager, Printing House, Lloyd's Register of Shipping.

Mr. A. E. Tiedeman, Senior Executive Officer, Office of Crown Agents for Overseas Governments & Administrations.

B.E.M.

Mr. J. Higgins, Permanent Way Inspector, Western Region, British Railways.

NEW EQUIPMENT AND PROCESSES



Electronic Level Controller

THE Pneutronic on/off level controller provides an output air pressure suitable for operating a standard pneumatic diaphragm control valve in the automatic loading of tanks, and containers in warehouses, chemical works and so on. The instrument can be used for controlling the level of powdered or granular solids, or liquids which may be at high temperatures, high pressures, or under corrosive conditions. A robust electrode is the only item in the container. There are no floats, pivots, gears, or diaphragms to become clogged or worn.

The equipment is fully transistorised and operates from a supply of 12 V. Changes of electrical capacitance are communicated from the electrode by co-axial cable to the wall-mounted instrument which has a lockable control to enable the container level to be varied to suit requirements. The air supply should be clean and dry, at 17 to 20 lb. per sq. in. gauge. Provision is made for reversing the output air pressure, so the equipment can be operated as a direct-acting or reverse-acting controller, the choice depending upon the exact function to be performed by the control valve or other regulating device.

A pressure gauge on the instrument shows the output air pressure. Both the control air valve and the complete sealed

electronic circuit can be removed quickly should this be found necessary for maintenance purposes.

Prices vary according to the type of electrode and the corrosion protection required. Further details may be obtained from the manufacturer, Fielden Electronics Limited, Wythenshawe, Manchester.

Trailer Mounted Compressor

CIVIL engineers will be helped in work on site by a trailer mounted compressor for use with a towing vehicle which has a rear mounted power take-off shaft. The lightweight two-wheel trailer mounts a Holman ATH 8 or TA 13 two-stage air-cooled compressor to form a portable unit providing 71.5 and 120 c.f.m. respectively. In the coupling a flexible torque absorber is fitted to take the shock of the starting sequence.

The trailer is designed for towing at speed without interfering with the vehicle's carrying duties whether of men, equipment or tools. It can be coupled to vehicles such as a Land Rover or light truck or tractor. When the compressor is not required it is easily uncoupled, leaving a vehicle's power take-off available for use with other site equipment. It is claimed that the unit is easily assembled and operated by semi-skilled labour. Coupling the compressor to the power take-off takes only a minute.

Both the Holman ATH 8 compressor, delivering 71.5 c.f.m. at 1,050 r.p.m., and the TA 13, which delivers 120 c.f.m. at 1,300 r.p.m., are mounted on a ½-in. mild-steel cross supporting brace which also carries the independent suspension of the two pressed-steel wheel hubs, which are fitted with conventional drum brakes.

Both sizes when mounted to the trailer are 78 in. long, 56 in. wide, and 44 in. high. The total weight of the ATH 8 unit is 1,074 lb., and that of the TA 13 unit, 1,344 lb.

Further details, including price and deliveries, may be obtained from the manufacturer, Holman Bros. Ltd., of Cambridge, Cornwall.

Aluminium Alloy Barrel Skid

AN aluminium alloy barrel skid, half the weight of steel skids of equivalent length and capacity, should accelerate and simplify the handling of metal drums,



wood barrels, cylinders, and so on in goods depots, and transit sheds and at docks.

The runners have wood battens along the top of the metal section, these can easily be replaced if worn. The skid is fitted with steel hooks. It is available in three standard lengths of 8 ft., 10 ft., and 12 ft.

Further details, including price and delivery, may be obtained from the manufacturer, Powell & Company, Burry Port, South Wales.

Stretcher/Ladder for Accidents

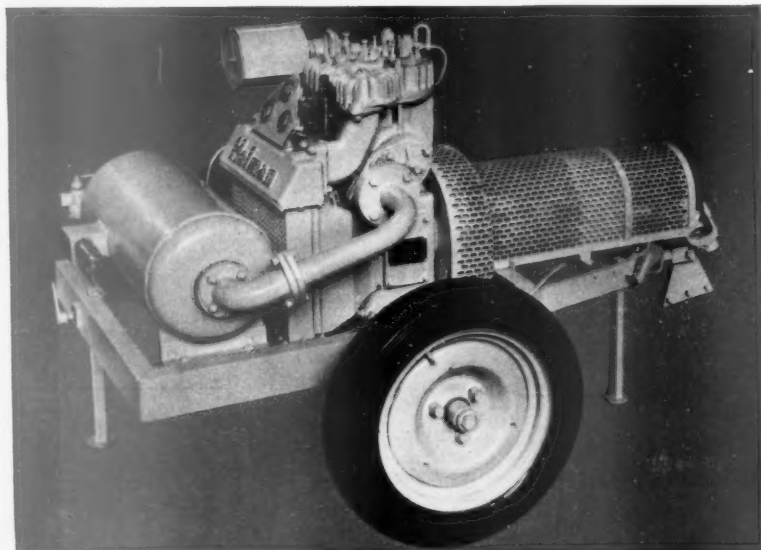
FOR rescue operations in railway or industrial accidents the Gloucester Stretcher/Ladder combines a means of reaching a patient above or below ground level, with a stretcher and canvas container to secure the patient for tilting at any angle with safety.

Each stretcher/ladder appliance is 7 ft. 8 in. long. The ends are made to join securely so that two sections will reach 14 ft. 8 in., and three sections, 21 ft. 8 in. The width is 1 ft. 7½ in., which is 2 in. less than a normal stretcher. This is advantageous in removing casualties from obstructed positions.

The ladder section material is aluminium alloy with rungs 12 in. apart. The weight is 21 lb.

The price is £16 10s. ex-works and a carrying sheet is available for £1 5s. extra.

The manufacturers and distributors are J. Nesbit-Evans & Co. Ltd., Wednesbury, Staffs. All enquiries should be addressed to Colonel R. H. Hoffman, c/o Gopsill Brown & Sons Ltd., St. Oswald's Road, Gloucester.



Stationary Air Compressors

TWO new stationary Hydrovane air compressors have a wide range of railway workshop applications.

The 200SR9501 has an output of 95 c.f.m. at 100 lb. per sq. in. and is mounted on a 6 ft. by 2 ft. horizontal air receiver. It is fitted as standard, with a water-



cooled oil cooler, and the water flow is controlled thermostatically. The price is £475 plus 20 per cent. An air-cooled oil cooler can be supplied at an extra cost of £30 plus 20 per cent.

The second unit, the 250SR12001, has an output of 120 c.f.m. at 100 lb. per sq. in. The price is £525 plus 20 per cent. It can be supplied with an air-cooled oil cooler at an extra cost of £40 plus 20 per cent.

Delivery of both is at present six months. Further details may be obtained from the manufacturer, Alfred Bullows & Sons Ltd., Long Street, Walsall, Staffs.

Facing and Centring Machine

A SPECIALISED version of a facing and centring machine, modified to accommodate the outer race bell forging of a universal coupling can be used in all machine shops. The Endomatic single-ended SC2 model consists of a heavy cast bed which carries the spotfacing and centring head, electrical control panel, and the slideways on which is mounted the Fraser self-centring power operated vice unit.

The spotfacing and centring head has a speed range of 314/1,105 r.p.m. through medium pick-off gears from a 3-h.p. motor. The spindle is carried in a hydraulically-operated quill with a total travel of 3 in. The head carries a self contained valve unit which provides any ratio of quill movement.

Clamping arrangements are designed for special-purpose application, because, as seen in the accompanying illustration, the component is located and clamped on two widely differing diameters. The difference in diameter between bell and stem is compensated by a cradle which ensures that the component is level and at a common centre height with the workspindle. The cradle also carries a dead length stop for endwise location of the bell end.

Transverse alignment with the workspindle is by the self-centring vice, through its electrically-operated torque unit and differential lead screws, whilst the stem is clamped by a compensating arrangement in which the clamping fingers are closed by the wedging action of a hydraulically actuated floating roller

arranged to operate in sequence with the machine cycle.

The component is hand loaded in the cradle and the bell end located against the end stop. Depression of the starting button closes the self-centring vice, starts the spindle and initiates the advance of the workhead. With the approach of the workhead the stem of the component is rigidly gripped by the compensating clamp. After facing and centring the workhead withdraws and the clamp is automatically released: the "vice open" control button is then depressed, and the workpiece unloaded.

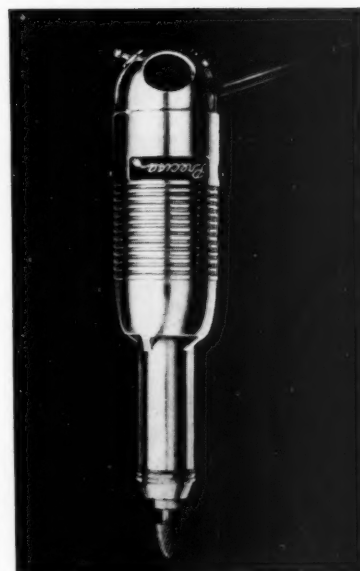
Further details may be obtained from the manufacturer Douglas Fraser & Sons, Limited, Arbroath, Scotland.

Grinder-Miller

THE Super 45 Grinder-Miller is equally suitable for hand grinding locomotive forgings and castings, coach work finishing, repair work, and so on, as it is for mounted applications such as milling and grinding on standard machine tools. With speeds up to 45,000 r.p.m. and an output of $\frac{1}{2}$ h.p. at the precision ground and honed collet chuck, tungsten carbide mills up to $\frac{3}{8}$ in. dia., with 1 in. cutting edge can be used, also grinding wheels up to $1\frac{1}{2}$ in. dia., and $\frac{3}{8}$ in. width. Tool shanks up to $\frac{1}{2}$ in. dia. can be accommodated. Aided by the very rigid and accurate spindle, with three over-size, grease-sealed micro precision ball bearings, and the one-piece aluminium alloy housing, the Super 45 is claimed to be capable of cutting, milling, grinding, and finishing faster than any other portable tool of its size, without vibration.

The entire tool housing is precision machined both inside and outside. The air-cooled a.c./d.c. motor is protected from overloading by a replaceable fuse and is available for 115, 220 or 240 V. An extra fuse is carried in a special compartment. Dimensions are 21 in. dia., 11 in. long. Weight is 34 lb. There is available a wide variety of additional equipment.

The tool is from the American and German made range of "Precise" power quills and grinder-millers. Further particulars, including price and delivery,

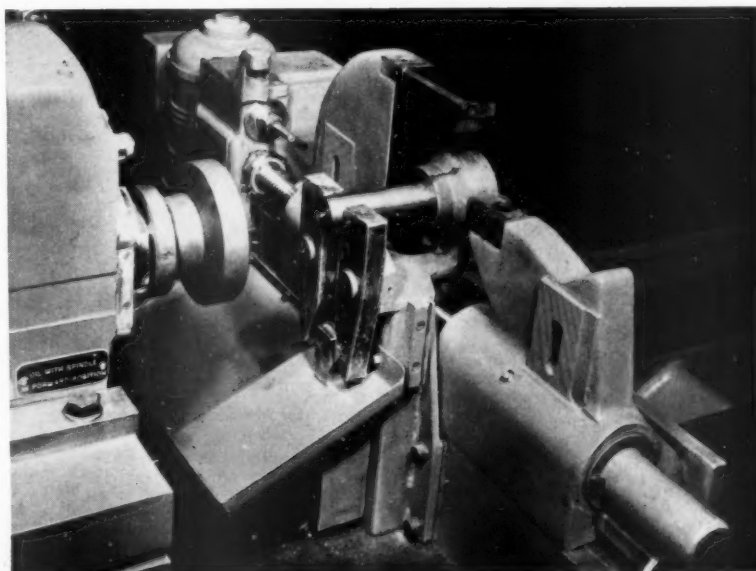


may be obtained from the distributor in this country, Lorant & Co. Ltd., 98-100, Croydon Road, London, S.E.20.

Lens Cleaning and De-misting Cabinet

THE Fleming lens cleaning and de-misting cabinet dispenses a liquid in a fine spray which is stated to treat industrial eye protection equipment in a matter of seconds. It is suitable for installation in workshops with a heavy atmosphere, and ideal for cleaning of welders' goggles. Tissues are provided in the cabinet, with a space for disposal after use. Neither liquid nor tissues damage plastic materials. It is estimated that about 12 goggles or spectacles can be treated at a cost of 1d.

Further details can be obtained from the manufacturer, Fleming Safety Equipment, 146 Clerkenwell Road, London, E.C.1.



New Wagon Works at Temple Mills, Stratford

*Replacement of works formerly on site
of Temple Mills Marshalling Yard*



Interior of the lifting shop

Temple Mills Wagon Works, situated about a mile north of Stratford Station, British Railways, Eastern Region, is now in full operation. The works are concerned with the repair of open and covered wagons, containers of all types, and platform barrows. Some new body work for road motor vehicles is also undertaken. The number of staff employed is about 550 and the weekly output of repaired wagons is some 350, made up of 50 heavy repairs, and 300 light. The construction of a new Temple Mills marshalling yard, made necessary the provision of a new wagon works as the site occupied by the old one was needed for the new yard. Certain sections of the works were not affected by this consideration. These are the machine shop, fitting shop, smith shop, paint shop and container shop, and these have continued to function in their existing accommodation.

Road Motor Shop

The road motor shop is housed in an Arcon prefabricated building erected on piles. The sides and roof have corrugated asbestos exterior sheeting and the interior sheeting is of asbestos with glass wool blanket insulation. The heating of the shop is by radiant panels which are supplied with high pressure hot water from the main boiler house. The shop is largely self-supporting, and has a small fitting shop, saw mills, and paint shop incorporated.

A 60-ft. concrete apron for the reception and departure of road vehicles extends to the main gate in Ruckholt Road, and an 80-ft. wide roadway, passing beneath the Ruckholt Road Bridge, connects the shop with the main works.

Wagon and Lifting Shop

The wagon and lifting shop is built on piles and is 455 ft. long, and consists of two low-roof bays, each 75 ft. wide for the repair of wagons and one high-roof bay 50 ft. wide which serves the lifting shop. The building is constructed with side glass curtain walling and corrugated

asbestos roof insulation. Roller shutter doors are fitted with air curtains which operate automatically when the doors are open. The wagon shop is heated by steam coils in the concrete floor, and the lifting shop by radiant sidewall panels. The shop is equipped with two wheel lathes, two journal lathes, an axlebox washing machine, an axle-journal turning and grinding machine, and a layout for the repair of vacuum cylinders.

Shop Layout

There are five roads in the wagon shop. One is devoted to the heavy repair of all-steel wagons, a second is used for the repair of steel-framed wooden top open wagons, and a third for covered vans. On the other two roads, an intermediate range of repairs is effected to all types of wagon. The five roads are equipped with compressed air and low voltage points. These connections are situated in troughs in the floor. Transformers are installed for a.c. welding.

A new boiler house has been built to provide heating and processed steam. This is equipped with two La Mont high-pressure hot-water boilers, each capable of producing 11,000,000 B.T.U.s per hr. The boiler house became necessary because in addition to the new shops the whole of the old shops have been fitted with radiant heating panels. The processed steam is provided by two Ruston & Hornsby Thermax boilers, each capable of producing 5,000 lb. of steam per hr. The fuel used is washed slack which is fed from wagons or the coal stack by a mobile crane and grab into a hopper at ground level. From there onwards the handling of the coal is entirely automatic. An electrically operated skip-hoist feeds the coal into two 40-ton hoppers and thence it is led by gravity to the travelling grate mechanical stokers. All operations within the boiler house are automatic, including the recording of high pressure hot water temperature and the recording of steam pressure and flue gas characteristics.

Materials are stored in the small remaining portion of the old wagon repair shop.

There is sufficient room to allow spacious storage accommodation and also the use of a fork-lift truck and a mobile crane. Palletisation has been introduced widely in this department.

Scottish Train Service Alterations

A diesel multiple-unit train service has been introduced between Dundee and Arbroath. Dundee East station has been closed, and all the trains operate to and from Dundee Tay Bridge. Trains making all the intermediate stops take 35-37 min., compared with the previous 39 min. to and from Dundee East, and trains stopping only at Broughty Ferry, Monifieth, and Carnoustie 30 min., or 28 min. if Monifieth is omitted. Additional trains are being run, including three more in each direction daily between Dundee and Carnoustie only. Most of the diesel trains run through to and from Perth but some operate over the Tay Bridge to and from Tayport, and in one or two cases Edinburgh; by this arrangement the diesel services require brief stops only at the Tay Bridge station. In all, the local workings between Dundee, Carnoustie and Arbroath are increased from 16 to 23 in each direction daily.

As a result of diesel trains having taken over most of the stopping trains between Edinburgh and Dundee, a number of these have been accelerated. The 8.30 a.m. from Dundee, now starting from Arbroath at 7.48 a.m., instead of waiting at Thornton to be passed by the 7.5 a.m. from Aberdeen to Edinburgh runs through ahead of the latter and reaches Edinburgh at 10.41 a.m., 27 min. earlier, so connecting with the 11 a.m. from Edinburgh to King's Cross. The 9 p.m. and 11.5 p.m. from Edinburgh to Dundee are accelerated 12 and 10 min. respectively, the 4.17 p.m. Dundee to Edinburgh by 11 min., and most of the other diesel trains on this service by about 7 min.

Among other Scottish alterations, the earlier running, except on Saturdays, of the morning service from Manchester to Edinburgh and Glasgow which was introduced in the 1958 summer timetable to keep this train clear of the morning "Caledonian," which has since been withdrawn, is abandoned. The train now runs daily in its Saturday times, at 9.43 a.m. from Liverpool, 9.30 a.m. from Manchester, and 12.44 p.m. from Carlisle, reaching Edinburgh at 3.14 p.m. and Glasgow at 3.20 p.m. The 1.25 p.m. from Euston has its Carstairs wait cut from 20 to 10 min. and reaches Perth 10 min. earlier, at 12.20 a.m.; this is due to the later running of the afternoon "Caledonian," which now follows the Perth train from Carstairs. The 11 a.m. from King's Cross to Glasgow now reaches Edinburgh at 6.30 p.m., 5 min. earlier. The 6.30 p.m. from Dumfries to Stranraer starts at 6.55 p.m. and reaches Stranraer Town at 9.30 p.m. daily.

LORD BRABAZON TO OPEN ELECTRICAL ENGINEERS' EXHIBITION.—Lord Brabazon of Tara will open the Electrical Engineers (A.S.E.E.) Exhibition, at Earls Court, London, on March 17. Lord Brabazon is President of The Royal Institution of Great Britain, and is also actively connected with a number of electrical industries.

Up Line Over Barking Flyover Opened

The up line over the new flyover of the Barking reconstruction scheme, which is being carried out in connection with the electrification of the London, Tilbury & Southend Line, British Railways, Eastern Region, was brought into use last Monday.

The eight lines through Barking Station carry a heavy steam and electric passenger service in addition to freight traffic, much of which is now diesel-hauled. Multiple crossings at the east end of the station are used by 700 trains daily. The purpose of the flyover is to carry passenger traffic between Tilbury and St. Pancras and the heavy and growing freight traffic between North Thames side and all parts of the country, over the Eastern Region and London Transport tracks, and so eliminate crossings on the level east of Barking Station.

Another important object of the scheme is to facilitate passenger transfer from London Transport District to London, Tilbury & Southend services and vice versa at Barking Station. This will be done by carrying the westbound District line under the main lines just east of the station through a dive-under, and over the main lines by a second flyover just west of the station. This will enable passengers to change trains at Barking without crossing the bridge or going through the subway.

The main flyover will be brought fully into use about the middle of the year, and the District Line flyover and dive-under should be completed by the end of the year. A new signalbox, which will replace the existing boxes at Barking West and East and control all train movements as far west as Plaistow and east to Hornchurch, should be completed early next year.

Passengers Refuse to Leave Underground Train

Passengers on a London Transport District Line train to Dagenham East, refused to get out when asked to do so by the station staff at Barking last week. The train from Putney Bridge arrived at Barking Station at 7.51 p.m., nearly 30 min. late because of modernisation work on the line. A station inspector wanted to turn the train round to get the timetable in balance, and because there was an Upminster train immediately behind stopping at all stations to Dagenham East and beyond, he asked the passengers to alight. A few did, but many refused, and those who had left the train soon rejoined it. The train eventually left for Dagenham East at 8.19 p.m. and trains were disrupted all along the line.

There were two further incidents when 70 passengers refused to leave a train with defective doors at Mile End, and another running late at Finchley Central.

Later, Mr. B. H. Harbour, Member of London Transport Executive for Operations, made the following statement.

"London Transport regret that there are certain occasions when it may be necessary to ask passengers to leave Underground trains either for reasons of safety or for the maintenance of service. I can give the public my personal assurance that this step is never resorted to except when there is no other alternative without creating greater hardship.

"When passengers are asked to leave a

train it is always undertaken with one object in view—to serve the public, to minimise delay and to get passengers travelling on the whole line to their destinations as quickly as possible. I realise to the full the inconvenience which is caused by rush-hour delays on the heavily laden Underground but I would earnestly ask for the fullest co-operation from passengers with our railway officials in this matter. Our sole objective in operating the Underground services is to serve the public efficiently and to get the passengers to and from their destinations as quickly as possible.

"The refusal of some passengers to leave trains last night when asked to do so by railway officials resulted in more than 10,000 passengers being held up unnecessarily for up to 40 min. Such action can only make rush-hour conditions more difficult for thousands."

Swiss Summer Service Train Improvements

Considerable train service improvements for Switzerland are envisaged in the European timetable alterations which will come into operation on May 31 next. In connection with the 12.25 p.m. from Lyons, a new express will leave Geneva at 4 p.m., reaching Berne at 5.44, Zurich at 7.23, and St. Gallen at 8.50 p.m.—accelerations of 16, 52 and 64 min. respectively on the times of the existing 3.7 p.m. from Geneva.

The "Paris-Eclair" first class diesel service between Dijon, Vallorbe, and Lausanne has attained such popularity that it is to be replaced by a locomotive-hauled train, first and second class. To this will be attached through coaches between Dijon and Pontarlier, Neuchâtel, and Berne, by the use of which it will be possible to leave Paris at 6.25 p.m. and reach Berne at 12.44 a.m., and, in the reverse direction, to leave Berne at 7.9 a.m. and reach Paris at 1.30 p.m. This will be the fastest service that has ever operated between Paris and Berne and will be faster than the complementary service via Belfort, leaving Paris at 7.45 a.m. and reaching Berne at 2.30 p.m., and returning at 5.15 p.m. with a Paris arrival at 11.55 p.m.

Subject to agreement with the authorities for passport and customs examinations to be conducted in the trains, new fast connections are to be made from Switzerland to the Zurich-Paris "T.E.E." diesel streamliner, "L'Arbalète." Passengers leaving Lucerne at 6.33 a.m. and reaching Basle at 7.51 a.m. will be able to change into the 8 a.m. "L'Arbalète" and so reach Paris at 12.55 p.m.; a connection from Berne at 6.30 a.m., changing at Olten into the Lucerne train, will make possible a Berne-Paris journey in 6 hr. 25 min.

Hook of Holland Route

The acceleration by roughly an hour each way of the German "Rheingold" and "Loreley" expresses is expected to add considerably to the attraction of the Harwich-Hook route between Britain and Switzerland. The southbound first and second class "Loreley," reaching the Swiss station at Basle at 5.30 instead of 6.26 p.m., will make all the connections made formerly by the first class "Rheingold," and will carry the latter's through Rome coach; the Swiss 5.30 p.m. to Lucerne and the Gotthard line will be held until 5.50 p.m. to make this connection, but the Milan arrival will be 16 min.

earlier, at 12 midnight. There is a similar improvement in the reverse direction.

The arrival in Basle (Swiss Station) of the "Rheingold" at 3.43 instead of 4.34 p.m. will enable this train to connect with the 4.10 p.m. to Lucerne (5.25 p.m.), Milan (10.25 p.m., 27 min. earlier than now), and Rome (7.38 a.m.), an overall acceleration of 2 hr. 32 min. from The Hook to Rome. In the reverse direction also there is a corresponding acceleration.

Service to Vienna

The first and second class Austrian diesel train "Transalpin," affording a day journey between Basle, Zurich, and Vienna, is to be accelerated to give a journey time of 10½ hr. between Vienna and Zurich. Westbound it will leave Vienna at 11.40 a.m., reaching Zurich at 10.25 p.m. and Basle (by changing at Zurich) at 11.53 p.m. Eastbound the train starts from Basle at 9.42 a.m., and leaves Zurich at its existing time of 10.50 a.m., but will be due in Vienna 45 min. earlier, at 9.40 p.m.

The night "Riviera Express," which has been running for the past two years and is unique in being routed between Basle and the Gotthard line via Aarau and Rotkreuz, so avoiding reversal in Lucerne, has become so heavily patronised a train that permanent duplication will be necessary during the summer season. From Basle, therefore, the French and Belgian sections, originating at Calais and Lille, and Ostend and Brussels respectively, will be run through to Milan independently of the Dutch and German sections, originating at Amsterdam and Hamburg, and vice versa.

European "T.E.E." Trains in 1959

From the introduction of the European summer timetables on May 31 next a new "Trans-Europe Express" called the "Gondolier" is to be added to the existing 14 "T.E.E." services. It will leave Munich at 7 a.m., and travelling via Innsbruck, Brennero, Bolzano and Verona will reach Venice at 2.15 p.m. The return journey will be begun at 3.30 p.m., and Munich will be reached at 11.2 p.m. Between Munich and Verona this train will follow the same route as the Munich-Milan "Mediolanum," which leaves Munich at 3.48 p.m. and Milan at 7.15 a.m., so that there will now be both morning and evening high speed services in each direction between Southern Germany and Northern Italy.

Of the two "T.E.E." services between Paris, Cologne and Dortmund, the "Paris-Ruhr" and the "Parsifal," the "Parsifal" in future will terminate at and return from Düsseldorf. The "Saphir," on the Ostend-Brussels-Liège-Cologne-Frankfurt service, which at present runs from Frankfurt to Cologne, coupled to the Frankfurt-Amsterdam "Rhein-Main," from May 31 will operate independently in each direction and will call also at Wiesbaden. It will leave Frankfurt 32 min. later, at 7.47 a.m., and Cologne 15 min. later, at 10.20 a.m.; Brussels will be reached at 1.6 p.m. and Ostend at 2.20 p.m., 21 min. later. In the eastbound direction the "Saphir" will continue to start from Ostend at 4.5 p.m., and reach Frankfurt at 10.25 p.m., as compared with the present 10.19 p.m. The "T.E.E." train "Helvetia," running between Zurich and Hamburg, will be accelerated 10 min. in each direction.

Staff and Labour Matters

The N.U.R. Looks Ahead

Writing in the first edition for 1959 of the *Railway Review*, Mr. C. W. Evans, President of the N.U.R., and Mr. S. F. Greene, the union's General Secretary, examined the position for its effect on British Railways staff and possible developments in the New Year.

Mr. Evans stated that the problems confronting railwaymen will be no less important than those of 1958. The economies undertaken by the British Transport Commission already have had their impact on the staff, particularly in the workshops. Branch lines have been closed and a decision taken to shut down the M. & G. N. line. It is claimed that there has been a considerable reduction in earnings, that the advantage has been lost of the three per cent increase granted last June, and that many railwaymen now are in a worse financial position than they were.

Even if the independent pay inquiry, now under way, confirms the union's contention that railwaymen's pay is low in comparison with other nationalised industries and public services, Mr. Evans stated that the question—where is the money coming from—still will remain.

The policy of the N.U.R. at all times will be to endeavour to ensure maximum protection for those members affected by economies and change. While recognising what the Commission already has done with regard to coping with redundancy, the union always will insist that it fulfils the obligations of the good employer.

If the inquiry proves that the railwayman is underpaid, the N.U.R. would not accept that appropriate increases were not possible because of the Commission's financial position. If necessary, an approach would have to be made to the Government to ensure that, in the words of the Cameron Report, "the railwayman is not in a worse position than his colleague in a comparable industry."

The union has set up a special sub-committee to examine the question of future transport policy. This sub-committee is working in conjunction with a special transport sub-committee of the Labour Party and T.U.C.

Referring to the modernisation programme on British Railways, Mr. Greene stated that the greater steps which will be taken during 1959 to press forward with the programme will present the union with many problems. The fact that the average annual mileage for a steam locomotive is 92,000, whereas for a diesel it is 204,000, coupled with the change in maintenance staff, is an indication of the magnitude of the problems to be faced. He instance the re-planning of marshalling yards and the mechanisation of goods stations, work which inevitably will mean changes in practice followed over many years.

In connection with the closing of the M. & G. N. and other uneconomic lines, Mr. Greene stated that as part of the Labour and trade union movement, the N.U.R. believes that the real solution lies in an integrated and properly co-ordinated transport system. In present circumstances, and because of the lack of proper planning in the past, it is probable that the closing of the M. & G. N. line would have come about whatever Government had been in power. He urged that the utmost consideration should be given to all those members who must move their homes to take up jobs elsewhere.

The pay review was a matter very much in the union's mind at present. The Railway Pay Committee of Inquiry is being supplied with all necessary informa-

tion to enable it to carry out its investigations with a view to reporting on the whole structure of railway wages in the not-too-distant future. Progress may not have been as fast as some people expected or wished, but it is the union's desire to make progress in agreement with the other trade unions concerned and the Commission so the committee's eventual report will be an authoritative document of great assistance in solving the problem of railway worker's wages.

Questions in Parliament

L.M.R. Main Line Electrification

Mr. Kenneth Robinson (St. Pancras N.—Lab.) asked the Minister of Transport & Civil Aviation on December 17 if he would give details of the revised programme for the electrification of the London Midland Region main line from Euston to Liverpool and Manchester, with estimated dates, if possible, for the completion of each section.

Mr. G. R. H. Nugent, Parliamentary Secretary, in a written answer: The B.T.C. is urgently examining the acceleration of this scheme, but it will take some time to settle the revised schedules.

Taxis at Railway Stations

Mr. Fenner Brockway (Eton and Slough—Lab.) asked the Minister of Transport & Civil Aviation on December 17 what decision had been reached on the recommendations of the Transport Consultative Committee regarding the privilege taxi ranks at railway stations.

Mr. G. R. H. Nugent, Joint Parliamentary Secretary, in a written answer: The Consultative Committees conclude that by and large the arrangements at present in force work well and should not be changed where they satisfy the public. The Committees think that throwing open station yards to all comers would give unsatisfactory results. They also think that agreements with cabowners' associations are not suitable unless the association is comprehensive and can enforce the terms of the agreement. The B.T.C. accepts these views, and Regional General Managers are seeing where such agreements can suitably be made.

Victoria Tube Line

Mr. Ernest Davies (Enfield E.—Lab.) asked the Minister of Transport & Civil Aviation on December 17 what decision had been reached following consultation in regard to the construction of the Victoria Line new underground railway and its financing.

Mr. G. R. H. Nugent, Joint Parliamentary Secretary to the Ministry, in a written answer, referred Mr. Davies to an answer given to him by Mr. Watkinson on July 23, when he had stated:—"It has not yet been possible to allocate any of the capital available to the Commission. The line would be costly to construct, and has no prospect of paying its way. It would, however, make a valuable contribution to London travel, and I intend to keep the project under review with the Commission with the object of including it in the Commission's programme as soon as resources permit."

Contracts and Tenders

Vacuum cleaning plant for Ilford sheds, British Railways

The British Vacuum Cleaner & Engineering Co. Ltd. has received a contract from British Railways, Eastern Region, for a large-scale vacuum cleaning installation at the electric car sheds at Ilford. The installation provides for 72 hose connection points set in nine rows between the tracks, with an exhaust driven by a 30-h.p. motor. The value of the contract is some £10,000.

British Waterways has placed an order with Fleming & Ferguson Limited, Paisley, Renfrewshire, for five diesel-driven bucket dredgers for use on the Aire & Calder and Sheffield & South Yorkshire Navigations in replacement of four obsolete steam dredgers. The new dredgers, with retractable superstructure to enable them to negotiate low bridges, will have a dredging capacity of approximately 70 tons per hr. at a speed of 20 buckets per min.

London Transport has placed a contract with J. L. Kier & Co. (London) Ltd., for the widening of bridge D.23A carrying Western Avenue over the Piccadilly Line at Park Royal Station. The value of the contract is some £20,500 and the work should be completed in six months.

The British Transport Commission, South Wales Docks, has placed the following contracts:—

Cowans, Sheldon & Co. Ltd.: supply and erection of electrically operated traverser for No. 14 coal hoist berth, Kings Dock, Swansea

Scottish Cables Limited: supply of cable for new crane facilities, North Dock, Newport.

British Railways, Eastern Region, has placed the following contracts:

Samuel Butler & Co. Ltd.: reconstruction of portion of superstructure of underline bridge No. 183 carrying up lines over Oundle Road, between Yaxley and Peterborough North

Lorne, Stewart (Heating) Limited: reglazing of roof over platforms No. 9 and 10 and circulating area at Liverpool Street Station

Clough, Smith & Co. Ltd.: supply, delivery and erection of electric lighting and power installation at Sheffield (Darnall) diesel maintenance depot

Westinghouse Brake & Signal Co. Ltd.: supply and installation of equipment in connection with the amalgamation of Clapton Junction and Hackney Downs signalboxes into one signalling scheme controlled from a new signalbox at Hackney Downs Station, in connection with the Liverpool Street-Enfield-Chingford electrification

George Simpson (London) Limited: construction of boiler repair shop at Doncaster Works-Crimpsall Yard

Weller Bros. Ltd.: reconstruction and lengthening of Lea Bridge Road overbridge at Lea Bridge Station.

Hosking & Son (Essex) Ltd.: provision of relay rooms at Cheshunt, Roydon, and Broxbourne Junction.

W. & C. French Limited: construction of concrete trestles, beams and raft over tracks and platforms, extension to abutment wall and alterations to footbridge at Upminster Station

George Simpson (London) Limited: repairs to platform awnings at Tilbury Riverside Station.

British Railways, North Eastern Region, has placed the following contracts:—

Brighthouse Estate Co. (Builders) Ltd.: extensions to diesel facilities, Hamerton Street, Bradford

Cleveland Bridge & Engineering Co. Ltd.: renewal of cill beams, bridge No. 80, Ripon Viaduct

Tarslag Limited: re-roofing platforms 1 and 2, and supply and delivery of pre-stressed concrete units, Saltburn Station

Stephenson Developments (Huddersfield) Limited: prefabricated timber building, York Old Station Buildings

Hancock & Co. (Engineers) Ltd.: profile cutting machine, Darlington Locomotive Works

Dow-Mac (Products) Limited: pre-cast pre-stressed concrete beams, bridge No. 48, Hare Park

Raines (H. & V.) Limited: heating installation and dust extraction and refuse destructor plant, Stanningley District Engineer's Shop

A. A. Jones & Shipman Limited: tool and cutter grinding machine, Darlington Locomotive Works.

The Special Register Information Service, Export Services Branch, Board of Trade, has received calls for tenders as follows:—

From South Africa:

1 ballast distributor for operation in conjunction with side discharge ballast wagons. The ballast deposited clear of the sleeper ends by the ballast wagons is to be picked up by the ballast distributor and distributed evenly on each side of each rail in a position correct for tamping by Matisa or Piasser type on-track tampers. The ballast distributor is required for 3 ft. 6 in. gauge track. Provision must be made for the screening of the ballast and for fines to be thrown clear of the ballast width, and the rate of distribution of ballast should be not less than 100 cu. yd. per hr.

The issuing authority is the Stores Department, South Africa Railways. Bids in sealed envelopes, endorsed "Tender No. F.7653: Ballast Distributor" should be addressed to the Chairman of the Tender Board, P.O. Box 7784, Johannesburg. The closing date is January 16, 1959. Local representation is essential. The Board of Trade reference is ESB/31364/58.

From India:

18 items of cranks and compensators. The issuing authority is the Director-General of Supplies & Disposals. The tender No. is WP2/4446/9/B/RC. Bids should be sent to the Director-General of Supplies & Disposals, Shahjahan Road, New Delhi. The closing date is January 28, 1959. The Board of Trade reference is ESB/31964/58.

Further details regarding the above tenders, together with photo-copies of tender documents, can be obtained from the Branch (Lacon House, Theobalds Road, W.C.1).

The Special Register Information Service, Export Services Branch, Board of Trade, reports that the Victorian Government Railways has invited tenders for the designing of circuits and the manufacture, supply, delivery, construction, erection and installation of automatic block signalling equipment between Dynon and Wodonga, Victoria, with C.T.C. for

use in part of the Melbourne-Sydney standard gauge railway, the cost of which is expected to be in the region of £A1,000,000.

Specifications and drawings can be obtained, at a cost of £A25, on application to the Director's Room, Room 28, Railways Office, Spencer Street, Melbourne, Victoria. The tender No. is 61386. The closing date is April 29, 1959. Tenders should be addressed to the Secretary, Victorian Railways, Railways Administration Offices, Spencer Street, Melbourne, Victoria. The Board of Trade reference is ESB/31380/58.

The Special Register Information Service, Export Services Branch, Board of Trade, has reported that the closing dates of the following calls for tender have been postponed:—

From Pakistan, for broad-gauge bogie wagons, reported in our October 10, 1958, issue, postponed to January 12, 1959.

From Portuguese East Africa, for passenger coaches, reported in our October 24, 1958, issue, and permanent way equipment, reported in our October 31, 1958, issue, both postponed to January 29, 1959.

From Lebanon, for diesel-electric locomotives and goods wagons, reported in our November 7, 1958, issue, postponed to January 28, 1959.

From India, for diesel-hydraulic shunting locomotives, reported in our November 21, 1958, issue, postponed to January 19, 1959.

Notes and News

Alfred Herbert Acquires Holbrook Share Capital.—Alfred Herbert Limited announces that it has acquired the whole of the issued share capital of the Holbrook Machine Tool Co. Ltd., of Stratford and Harlow, makers of the Holbrook precision lathes.

Crown Agents' Inspectorate.—Manufacture of the dual-purpose tank wagons for the Nigerian Railway Corporation described in our issue of December 26, 1958, was carried out under the supervision and inspection of the Crown Agents for Oversea Governments & Administrations in their capacity as agents and technical advisers to the Corporation. Their Inspecting Engineer was resident at the Société Métallurgique d'Enghien St. Eloi Works during the whole period of construction.

Liverpool-Wigan Diesel Service.—An interval service with diesel multiple-unit sets has been introduced by British Railways, London Midland Region, between Liverpool Lime Street, St. Helens, and Wigan. Trains leave Lime Street at hourly intervals from 9.10 a.m. to 9.10 p.m. (also at 6.40 a.m.), calling at all stations and taking 48 min.; in the reverse direction departures from Wigan are at hourly intervals from 10.5 a.m. to 8.5 p.m., also at 8.5 a.m., 9.15 and 10.35 p.m., taking 50 min. In addition, there are hourly fast trains, calling only at Huyton and Prescott, from Lime Street to St. Helens from 9.40 a.m. to 4.40 p.m., and from St. Helens to Lime Street from 9.7 a.m. to 4.7 p.m. and at 5.10 p.m. On Sundays an all stations service will operate between Lime Street and St. Helens only from 2.20 to 10.20 p.m. westbound and 1.50 to 9.50 p.m. westbound. This is a complete transformation of the former steam service, which on weekdays was at irregular

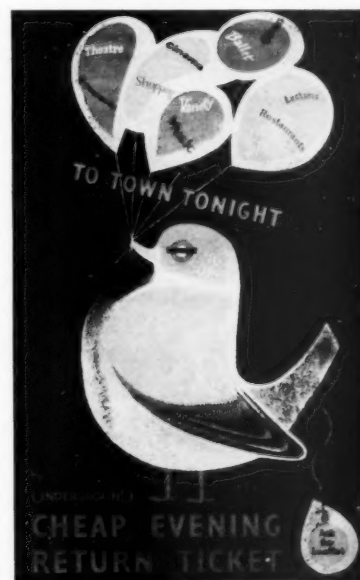
intervals, and totalled only 16 eastbound and 14 westbound local trains, as compared with 26 and 24 respectively, and on Sundays was practically non-existent.

Asquith Machine Tool Corporation Limited.—Group profits of the Asquith Machine Tool Corporation Limited in the year ended September 30, 1958, rose from £699,569 to £815,105. The net balance after taxation was £373,705, compared with £325,849 in the previous year. For the current year the directors consider profits will be such as to justify maintenance of a 15 per cent dividend.

Replacement of Two Bridges on North London Line.—Replacement of two bridges, one over Randolph Street, N.W.1, and the other over Caledonian Road, N.1, was carried out simultaneously starting on Sunday, January 4. Care has been necessary in synchronising work in removing the existing time-expired bridges and replacing them with new steel girder and concrete structures. On certain Sundays from now until March the line between Caledonian Road and Camden Road stations will be closed, but special bus services at no extra charge to passengers will run between Highbury, Caledonian Road & Barnsbury, and Camden Road stations.

John Summers & Sons Ltd., Demonstration.—Fabrication methods and applications associated with Stelvetite plastic-coated steel, introduced in October 1957, will be demonstrated by John Summers & Sons Ltd., at a private exhibition at the Royal Festival Hall on January 13-16. Spot welding, which can be done without damage to the P.V.C. coating, high frequency welding, lock forming, and drum sealing are amongst demonstrations to be given to invited customers and other interested companies. Stelvetite in all its available colours and gauges will be shown with a large selection of articles

London Transport Publicity



L.T.E. poster designed to popularise cheap evening Underground travel

now being produced. Tickets may be obtained for the last day, January 16, on application to John Summers & Sons Ltd., (M.R. & D.), St. Ermins, Caxton Street, London, S.W.1.

Higher Charges for Meals on British Railways.—The prices of certain table d'hôte meals in trains on British Railways have been increased. In restaurant cars operated by British Transport Hotels & Catering Services, the new prices are: full breakfast 7s. 6d. (instead of 6s. 6d.), plain breakfast 4s. (3s. 6d.), high tea 7s. 6d. (6s. 6d.), and dinner 10s. 6d. (9s. 6d.). In ordinary Pullman car services the altered prices are: breakfast 6s. 6d. (5s. 6d.) and dinner 10s. (9s. 6d.). Other prices remain unchanged. Buffet cars are not affected.

Railwaymen Chase Runaway Locomotive and Brake Van by Taxi.—A steam locomotive and brake van ran away unmanned during shunting operations at Clacton Station, British Railways, Eastern Region, last week. The driver and other railwaymen gave chase in a taxi and tried to intercept the locomotive at Cook's Green bridge. An emergency message was sent to all signalboxes and the runaway was switched on to a siding at Thorpe-le-Soken, four miles away. It was slowed down by the rising gradient in the siding and came to rest after hitting the buffers.

Burns Bicentenary.—The Scottish Region of British Railways has produced a quad royal poster in full colour in connection with the bicentenary of the birth of Robert Burns, which will be celebrated on January 25. The poet is shown surrounded by illustrations of people and places associated with him, and characters and scenes from his poems. The poster was planned by the Public Relations & Publicity Officer of the Scottish Region. It was lithographed by McCordquodale & Co. Ltd. The artist was W. C. Nicolson, of Glasgow. The Region has also produced and distributed a folder to mark the bicentenary. Like the poster, it will be

on display in stations, town offices, and ticket agencies throughout Great Britain. There has also been a print of the poster and the folder for distribution in Canada and the U.S.A. Distribution has also been made to British Railways agents on the Continent of Europe.

Luncheon to Scottish Region Holders of Civic Office.—Sir Ian Bolton, Chairman of the Scottish Area Board of the B.T.C., and Mr. James Ness, General Manager, British Railways, Scottish Region, recently entertained to luncheon five Provosts who are members of the staff of the Region, and the Treasurer of the Corporation of the City of Glasgow, who recently retired from the railway service. Others present were Mr. F. Donachy, Member of the Scottish Area Board, and Mr. D. F. Gowan, Regional Establishment & Staff Officer. The holders of civic office were: Provosts A. Beedie (Coatbridge), J. Dunlop (Maybole), J. Forde (Stevenston), A. Fraser (Keith), and A. Frederick (Dumfermline), and Treasurer John Johnston.

Property Left in Buses and Coaches.—Mr. Harold Watkinson, Minister of Transport & Civil Aviation, has made regulations which came into force on January 6, authorising operators of buses and coaches to increase from 3d. to 1s. their basic charge to claimants of lost property. He has also increased from £2 to £4 the maximum award payable to conductors for lost property which they hand in. This increase is the first since 1934. For many years lost property departments have been run by the bus operators at a heavy loss. The new regulations will help them to cover expenses and reduce the amount by which their lost property offices have to be supported out of revenue from fares. Besides the basic charge, claimants of articles worth over 2s. will continue to pay one-twelfth of the value of the article which is passed on to the conductor as a reward. The increased maximum of £4 will thus only affect articles worth over £24. The new regulations do not apply

to London Transport vehicles which, together with the trains, are covered by separate regulations.

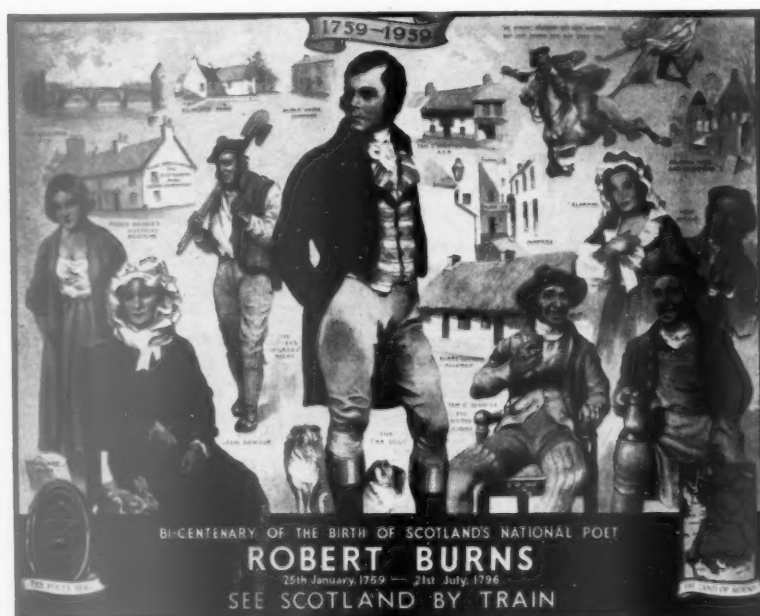
The Railway Club Diamond Jubilee.—A special programme of lectures and visits, extending throughout the present year, has been arranged to mark the Diamond Jubilee of the Railway Club, the oldest organisation of railway enthusiasts. The club was founded at a meeting in Birmingham on June 27, 1899, but its headquarters were soon afterwards transferred to London, where they have since remained. There are now nearly 200 members, including a number of railway officers. The headquarters of the club, at 320, High Holborn, W.C.1, house a comprehensive reference library of current and rare books and periodicals.

Work at Bank Station, Waterloo & City Line.—The ticket office at the Bank Station on British Railways, Southern Region, Waterloo & City underground line was moved last weekend. On the morning of January 5 a temporary office was opened at the top of the 300-ft.-long subway instead of at the platform entrances. The move has enabled work to be expedited on installing the twin-track "travolator," or moving pavement, in a tunnel alongside the subway. When complete the travolator will give the 40,000 passengers who now traverse the subway every week day a 2-min. ride at the rate of 800 passengers a min.

Sailing Tickets for Ireland.—Summer sailing tickets to and from Ireland by all routes will be available from February 2 on payment of 10s. deposit which is allowed from the cost of the travel ticket when purchased. In announcing this, British Railways and associated undertakings emphasise that since the introduction of the deposit arrangements, more people have been able to travel on the sailing of their choice. They also remind passengers that it is in their interests to apply for sailing tickets for the return journey at the same time as application is made for the outward trip. Sailing tickets are only required on certain dates when peak loadings are expected.

Multiple-Unit Diesel Trains in the Sheffield Area.—British Railways, Eastern Region, has introduced multiple-unit diesel trains to operate the local passenger train service between Sheffield Midland and intermediate stations to York. It is the first time diesel trains have been used on timetable services from Sheffield Midland and they have replaced a number of existing steam services. The opportunity has also been taken to introduce two additional services between Sheffield Midland and York and one additional service from York to Sheffield Midland. Long distance express passenger trains from Newcastle and York to Bristol and the West which stop at Sheffield Midland will continue to be steam-hauled.

Southern Region H.S.A. Help for Orphans.—Two cheques from British Railways, Southern Region, branch of the Hospital Saving Association were handed recently by the Chairman, Mr. L. T. Leonard, to Mr. Sidney Greene, General Secretary of the National Union of Railwaymen, and Mr. C. J. Evans, Assistant General Secretary of Associated Society of Locomotive Engineers & Firemen, at an informal gathering at the Charing Cross Hotel, London. The cheques were surplus funds from branch contributions and were given to the unions' funds for orphans.



Poster produced by British Railways, Scottish Region, to mark the bicentenary of Robert Burns

Mr. Greene and Mr. Evans were joined by Mr. H. C. Lang, Regional Establishment & Staff Officer and President of the branch, in paying tribute to the work of the H.S.A. Mr. C. S. Clarke, General Secretary of the H.S.A., speaking of the work of his railwaymen members, said that this was really a gift from railwaymen to railwaymen, to be used for railwaymen. The presentation was also attended by Mr. F. D. Y. Faulkner, Public Relations & Publicity Officer of the Region, and by Mr. H. V. Wansbury, Paybill Assistant, Regional Accountant's Department.

Alterations in Scottish Region Freight Facilities.—From January 1, with the approval of the Transport Users' Consultative Committee for Scotland, the following goods depots of British Railways, Scottish Region, have become unstaffed public sidings for traffic in full wagonloads:—Dubton, between Forfar and Aberdeen; Forgandenny, between Gleneagles and Perth; Moffat, terminus of the branch from the Carstairs-Carlisle line; Plean, between Larbert and Stirling; Shieldhill, between Lockerbie and Dumfries; and Blairadam, between Dunfermline and Kinross (unstaffed May to October). Facilities are available at other stations in the areas concerned. Also with the approval of the T.U.C.C. for Scotland, the following goods depots were closed on January 1:—Ballencreeff Public Siding, Drem, between Edinburgh and Dunbar; East Calder Goods Depot, on the branch from the Edinburgh-Bathgate line; Fushiebridge, between Edinburgh and Galashiels; Gifford, on the branch from the Edinburgh-Dunbar line; and Letham Mill Public Siding, Arbroath.

Barrow-in-Furness Station Completed.—British Railways, London Midland Region, station at Barrow, originally Barrow Central, has been rebuilt and renamed Barrow-in-Furness. The buildings have been constructed on the site of the old structures and are steel framed. A considerable amount of glass has been introduced in the infilling panels forming windows to both the road and platform elevations. The external brickwork is of 11 in. thick cavity construction with the exception of the booking hall. Multi-coloured rustic bricks have been used for the elevations, with slate window sills and fascia over the high level windows to the front en-

trance. The platform awnings are of light steel decking, with continuous roof glazing in line with the face of the external wall adjacent to No. 1 platform. Flooring to the booking hall and cafeteria-waiting rooms is laid in precast terrazzo tiles, and polished hardwood has been extensively used as a decorative wall lining in the cafeteria. The framing to the ticket windows and internal window frames are also of polished hardwood.

French Railway Charges Increased.—Basic passenger fares on the French National Railways were increased from fr. 10.50 to fr. 12.00 a km. first class, and from fr. 6.80 to fr. 8.00 a km. second class, with effect from January 1. Certain other passenger charges have been increased. On the other hand, some reservation charges have not been augmented. The basic freight rate has been increased by slightly over 10 per cent, but this increase is offset by a number of factors in the rating structure.

Department of Scientific & Industrial Research Five-Year Plan.—Expenditure on research by the Department of Scientific & Industrial Research will be nearly doubled in the next five years. Under its second five-year plan, for the period 1959-64, some £61 million will be made available to the department, compared with £36 million for the first quinquennium which ends on March 31, 1959. Expansion will continue steadily throughout the period and for the year 1963-64 expenditure is planned to reach about £14 million. This figure does not include certain items, the largest of which is the British contribution to the European Organisation for Nuclear Research (C.E.R.N.) which will continue to be financed outside the five-year plan.

National Lending Library for Science and Technology.—The Department of Scientific & Industrial Research is to take over part of the former Royal Ordnance Factory at Thorp Arch, near Boston Spa, Yorks, for the use of the new National Lending Library for Science & Technology. Present proposals indicate that the library will begin operating at Thorp Arch in 1961 and become fully operational during the following year. Existing large single-storey buildings will be converted into offices and book-stores, and the site provides adequate room for expansion in

the future. The new library, the nucleus of which already exists in the D.S.I.R. lending library unit now at Chester Terrace, Regents Park, London, will cover all subjects in science and technology, except for some fields of medicine. It will take over the responsibility for the lending service now provided by the Science Museum Library, which in future will concentrate on serving the needs of the enlarged Imperial College of Science & Technology. It is also taking over some of the literature now held by the Science Museum Library.

New Transit Shed for Empress Dock, Southampton.—The British Transport Commission has announced that a new single-storey transit shed is to be built at quay 26/27, Empress Dock, Southampton, in replacement of two sheds which were destroyed during the war. The restoration of transit shed facilities at this quay will avoid the unnecessary use of deep-water berths elsewhere in the port and will encourage the development of additional traffic for Empress Dock. The shed will be 725 ft. in length, 95 ft. wide, with an adequate roof height to allow the use of mechanical handling appliances. The work will include a re-arrangement of rail tracks on the quay and the provision of a platform at the rear of the shed for the loading and unloading of rail and road vehicles.

Forthcoming Meetings

January 12 (Mon.).—Institute of Traffic Administration, Birmingham Centre, at the Cosmopolitan Club, Fore Street, Birmingham, at 7.15 p.m. Discussion on labour relations in transport, led by Mr. S. Ison, Transport and General Workers' Union, and Mr. D. E. Skelding, Road Passenger & Transport Association.

January 13 (Tue.).—British Railways, Western Region, London Lecture & Debating Society. Debate with the British Railways, Western Region, Bristol Lecture & Debating Society, at Bristol, "That the continued retrenchment of railway services must eventually result in the failure of British Railways as a first class transport undertaking."

January 13 (Tue.).—Institute of Transport, Southern Section, at the offices of the Harbour Board, Town Quay, Southampton, at 5.45 p.m. Paper on "Railway management," by Mr. E. W. Arkle.

January 13 (Tue.).—Institute of Transport, Metropolitan Graduate & Student Society, at 80, Portland Place, London, W.1, at 6.15 p.m. Paper on "The contribution of transport to the Brussels Exhibition," by Mr. M. J. Middleton (Graduate.)

January 14 (Wed.).—Institution of Locomotive Engineers, at the Institution of Mechanical Engineers, 1, Birdcage Walk, Westminster, S.W.1, at 5.30 p.m. Paper on "Automatic train control—the British Railways system," by Mr. J. H. Currey.

January 14 (Wed.).—Institution of Railway Signal Engineers, London Section, at the Institution of Electrical Engineers, Savoy Place, London, W.C.2, at 6 p.m. Paper on "Microwave radio for use in trunk telecommunications networks," by Mr. P. W. Hanstock.

January 14 (Wed.).—British Railways Southern Region Lecture & Debating



Main entrance and booking hall, Barrow-in-Furness Station

Society, at the Chapter House, St. Thomas' Street, London, S.E.1, at 5.45 for 6 p.m. Mr. F. D. Y. Faulkner will introduce a well-known radio personality.

January 15 (Thu.).—Permanent Way Institution, London Section, at the Headquarters of the British Transport Commission, 222, Marylebone Road, London, N.W.1, at 6.30 p.m. Discussion, "Any Questions."

January 15 (Thu.).—Diesel Engineers' & Users' Association, at the Institute of Marine Engineers, The Memorial Building, 76, Mark Lane, E.C.3, at 2.30 p.m. Paper on "Multi-fuel high-speed diesel engines," by Mr. H. L. Troughton.

January 15 (Thu.).—Institute of Transport, Northern Ireland Section, at 21, Linenhall Street, Belfast, at 6 p.m. Paper on "Some aspects of passenger transport operation," by Mr. R. MacKenzie.

January 16 (Fri.).—Stephenson Locomotive Society, North Eastern Area, in the Demonstration Theatre, Northern Gas Board Showroom, 30, Grainger Street, Newcastle-on-Tyne, 1, at 7 p.m. A film show presented by British Railways.

January 16 (Fri.).—Railway Correspondence & Travel Society, London Branch, at the Railway Clearing House, Eversholt Street, London, N.W.1, at 7.15 p.m. Illustrated paper on "Austria, 1958," by Mr. J. B. C. McCann.

January 16 (Fri.).—Institute of Transport, South Wales & Monmouthshire Section, at the Royal Hotel, Cardiff, at 7.15 p.m. Paper on "Electrification of Crewe/Manchester railway," by Mr. P. Fisher.

January 17 (Sat.).—Stephenson Locomotive Society, North Eastern Area, at the Griffin Hotel, Bear Lane, Leeds, 1, at 6.30 p.m. Film show "Railway cine film shots throughout the British Isles, 1957," by Mr. W. A. Camwell.

January 17 (Sat.).—Stephenson Locomotive Society, North Western Area, in the Conference Room, Liverpool Central Station, at 7.30 p.m. An illustrated talk, "Narrow gauge miscellany," by Mr. P. B. Whitehouse.

January 20 (Tue.).—Institute of Transport, Visual aids meeting, at 80, Portland Place, London, W.1, at 6.15 p.m. View and discussion of films—"Mishap," "Single line working," and "Time, space and effort."

January 21 (Wed.).—Railway Students' Association, at the London School of Economics & Political Science, Houghton Street, London, W.C.2, at 6.15 p.m. Paper on "Choosing the medium—some problems confronting a Transport Manager," by Mr. H. A. Henderson, Transport Manager, Monsanto Chemicals Limited.

January 22 (Thu.).—Model Railway Club, at Caxton Hall, Westminster, S.W.1, at 7.45 p.m. Paper on "The Metropolitan Railway in its steam days," by Mr. K. Benest.

January 22 (Thu.).—British Railways, Western Region, London Lecture & Debating Society, in the Headquarters Staff Dining Club, Bishop's Bridge Road, Paddington, W.2, at 5.45 p.m. Illustrated paper on "The distribution of bananas by railway," by Mr. E. R. Gooding, Passenger & Freight Manager, Elders & Fyffes Limited.

OFFICIAL NOTICES

WANTED, EXPERIENCED RAILWAY SIGNAL-LING ENGINEERS for development work, for service on the Continent. Applications in own handwriting (not with ballpoint), in confidence, with full details of experience, qualifications, and salary required to Box 740, *Railway Gazette*, 33, Tothill Street, London, S.W.1.

LONDON TRANSPORT require **TECHNICAL ASSISTANTS** for Telephone Section, Signal Engineer's Drawing Office, Earls Court. Duties include preparation of all types of drawings and circuits for manual and automatic telephone systems. Applicants should have knowledge of manual and automatic telephone systems and be trained for telephone work. Ordinary National Certificate in Electrical Engineering advantageous. Salary range £515 at age 24 rising to a maximum of £767. Commencing salary up to £675 dependent upon age and qualifications. Additional payments for recognised qualifications. Opportunities for further promotion. 38-hour week; free travel; contributory superannuation fund. Applications within 7 days to Staff and Welfare Officer (F/EV 721/1), London Transport, 55 Broadway, S.W.1.

THE NIGERIAN RAILWAY CORPORATION invites applications for the following post:

CARRIAGE AND WAGON SUPERINTENDENT. Duties: The officer will be responsible to the Chief Mechanical Engineer for the maintenance of Carriages and Wagons and will be required to take full charge of Carriage and Wagon Workshops and Depots.

Qualifications: Candidates must have considerable experience of managing Carriage and Wagon Workshops on a Railway of standing and must be Corporate Members of the Institution of Mechanical Engineers. Salary: £2,350 per annum. The appointment on contract will have a gratuity payable on completion at the rate of £39 3s. 4d. for each completed month of service.

Tours: 15 months in Nigeria followed by 15 weeks, leave on full pay.

Quarters: Partly furnished quarters are provided at low rental.

Allowances: There are attractive family, travelling, transport and other allowances.

Send postcard before 19th January, 1959, mentioning the post and this paper for further particulars and application form to:—

The London Representative,
Nigerian Railway Corporation,
Nigeria House, 9 Northumberland Avenue,
London, W.C.2.

MOTORWAY and major Trunk Road improvements in the West Riding of Yorkshire. The County Council is undertaking on behalf of the Ministry of Transport and Civil Aviation the construction of the **DONCASTER BY-PASS MOTORWAY** and other major trunk road improvement schemes which will be carried out by contract. Applications are invited for road and bridge staff within the following salary ranges: **RESIDENT ENGINEERS**, for roads or bridges—maximum salary £1,515 p.a. (Grade "C" £1,295-£1,515). **ASSISTANT RESIDENT ENGINEERS** and technical staff for roads or bridges—maximum salary £1,175 p.a. (Grades APT. I to IV £575-£1,175). **SUPERVISORS OF WORKS** for roads or bridges—maximum salary £1,200 p.a. The appointments are temporary and the salaries are inclusive of all allowances for lodging, subsistence, travelling, etc. Candidates must have appropriate qualifications and experience and starting salary will be fixed within the ranges accordingly. Suitable candidates will be considered for transfer to the permanent staff as and when vacancies occur. The majority of the appointments are expected to be wholly on site work, but some may be wholly or partly at headquarters in Wakefield. Candidates having a preference for appointment at Wakefield should state this in their application. The appointments offer both design and practical experience in all aspects of modern road and bridge construction as it is expected that up to 50 miles of Motorway and improved trunk roads will be under construction within eighteen months, the first schemes being started within three months. Application forms from the County Engineer and Surveyor, County Hall, Wakefield, to be returned stating the grade applied for by 9th February, 1959.

JAMAICA Omnibus Services Ltd. VACANCY FOR CHIEF ENGINEER. Jamaica Omnibus Services Ltd. invite applications for the position of Chief Engineer. The Company operates the City services in Kingston, Jamaica; has a modern fleet of 170 Leyland vehicles; a Jamaican maintenance staff with European supervisors, and is equipped with modern workshops and equipment, stores and offices. Applications are sought from individuals who hold a senior appointment within the Omnibus Industry and who have had administrative and technical experience in the maintenance of a fleet of public service vehicles and in the control of staff. The appointment will be for an initial term of five years (subject to satisfactory service) and, subject to renewal, will continue thereafter on a three-yearly basis. The salary will depend upon the applicant's experience and qualifications but will be not less than £2,750 per annum, inclusive of an overseas allowance of £500 per annum. A rent-free house will be provided for a married man, or an allowance of £300 per annum in lieu thereof for a single man. A car is provided by

the Company. The Company has a contributory pension scheme. Passages will be paid to Jamaica for the successful applicant and family and three months' home leave will be allowed on completion of three years' service, with paid passages for the officer and his wife. Applications, which will be treated in strict confidence, should be sent under private cover to The Secretary, The British Electric Traction Company Limited, Stratton House, Piccadilly, London, W.1, to reach him not later than 31st January, 1959, giving full particulars of the applicant's career with a front summary sheet showing: (1) name and address; (2) age; (3) whether single or married and, in the latter case, the number and ages of any children; (4) education; (5) professional or technical qualifications; (6) brief statement of present and previous appointments arranged chronologically; (7) present salary; (8) earliest date available to take up the appointment.

Railway Stock Market

Foreign rails remained neglected and were scarcely influenced by the buoyant trend in other sections. United of Havana second income stock at 6½ was unaffected by the latest turn of events in Cuba, while in other directions, Antofagasta ordinary stock eased from 13 to 12½, though, compared with a week ago, the preference stock strengthened from 26 to 26½. San Paulo Railway 3s. units kept at 2s. while Mexican Central "A" bearer debentures were again 73½.

A feature was provided by West of India Portuguese capital stock. The quotation was marked up from 77 to 95, and that for the 5 per cent debentures from 68 to 89.

Elsewhere, there were a fair number of dealings in Brazil Railway bonds, ranging up to 7½. Chilean Northern first debentures were 54xd., Costa Rica ordinary stock 13½ and the 6½ per cent first debentures 74½xd. International of Central America remained at \$22½ and the preferred stock at \$112. Paraguay Central prior debentures were quoted at 11 and Guayaquil & Quito assented bonds at 82½.

Buying of Nyasaland Railways shares put them up to a record level of 14s. in response to higher dividend hopes; the 3½ per cent debentures were 62½.

Canadian Pacifics have moved up from \$52½ a week ago to \$53½; the 4 per cent preference stock was 53½xd. and the 4 per cent debentures 64. White Pass shares changed hands around \$14½.

Buyers were more in evidence for shares of locomotive builders and engineers in the hope of better orders for the industry from home and abroad. Beyer Peacock 5s. shares have improved from 8s. 7½d. a week ago to 9s. while Charles Roberts 5s. shares moved up from 10s. 6d. to 10s. 10½d. and although best prices were not held, Westinghouse Brake rose further on balance from 45s. 3d. to 46s. G. D. Peters shares were quoted at 27s. 6d. but remained firmly held with few shares available in the market.

Birmingham Wagon receded sharply from 20s. to 18s. 10½d. on the company's statement about current business, and North British Locomotive eased from 14s. 6d. a week ago to 14s., but Gloucester Wagon 10s. shares held firm at 19s. and Wagon Repairs 5s. shares at 10s. 6d. Stone-Platt Industries shares rose afresh to 46s. 3d. at which there is a yield of 6½ on the basis of last year's 15 per cent dividend. English Electric have been active at 61s. following the latest news of the group's big order book, which includes improved business for their railway equipment activities. The English Electric rights issue of additional shares and debentures will bring in £10,000,000, part of which will be used to reduce bank loans. General Electric were 39s. and Associated Electrical 58s. while Crompton Parkinson 5s. shares were 13s. 4½d.

